Maybank IBG Sustainability Research
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Maybank
Investment Bank

Malaysia's ESG Compendium 2022

Shifting Into Higher Gear

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Broader, better coordinated momentum; ESG 2.0 rollout

Compared to the relatively downbeat assessment of Malaysia's broad ESG positioning as articulated in our maiden Compendium ("*Sustainability: No longer optional*", dated April 8), the last 18 months has seen a sharp acceleration in Sustainability initiatives by government, regulators and corporates alike. Crucially, these stepped-up measures, disclosures and targets demonstrate rising cohesion and integration across stakeholders, significantly increasing the chances of successful execution as well as the creation of a positive feedback loop. With qualitative ESG 1.0 tear sheets now embedded in all company research, MIBG Research has been rolling out quantitative-focused ESG 2.0 tear sheets containing MIBG's proprietary ESG scoring (45 stocks; pgs.45-147), supporting ESG Portfolio optimisation.

Government, regulators jolt corporate complacency

Setting the tone with an updating of Malaysia's Nationally Determined Contributions (NDC) target to an unconditional 45% reduction in emissions intensity by 2030, development blueprints such as the 12th Malaysia Plan (12MP), Renewable Energy Roadmap and Low Carbon Nation Aspiration (LCNA) are clear on Sustainability policy urgency and direction/targets. Regulators remain in the vanguard, coordinating on key issues such as climate risk, disclosures and financing. Bursa's Enhanced Sustainability Reporting and Voluntary Carbon Market (VCM) are of particular note, the latter a key step towards developing a Domestic Emissions Trading Scheme (DETS). Corporates are duly expediting adoption of "Sustainability First" strategies, notably "E" initiatives by GLCs such as PETRONAS and Tenaga – however, "S" issues relating to foreign labour remain a vulnerability.

ASEAN vs. Malaysia: ESG supporting outperformance?

Using three Sustainalytics-based stock filters namely low-to-medium ESG risk ratings, quality of management and level of controversies (pg.34), we undertook a study to gauge the level of positive correlation between ESG scores and performance. On relative performance vs. benchmark, per Fig 43, Malaysia (MY) is a positive outlier vs. broad ASEAN in that the 30 filtered MY stocks significantly outperformed both the MSCI Malaysia Index as well as overall MIBG coverage returns over 1/3/5 years periods.

MY ESG Portfolio is balanced, backtests positively

Our refreshed ESG Portfolio (Fig 48) is balanced both in terms of risk scoring (comprising 10 qualitative/quantitative filtered + 5 "momentum" stocks) as well as core business diversity. Per Fig 49, we backtested the performance of this portfolio, whose returns of 9.7%/3.7%/13.6% over 1/3/5 years handily beat overall market coverage baskets and the MSCI Malaysia, as well as the broader 30 filtered MY stocks covered by MIBG.

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KLCI vs. FTSE4Good APAC Index

Top BUY picks (General Portfolio)

Stock	BB Ticker	Price	TP	*Upside (%)*
Large Caps				
HL Bank	HLBK MK	20.70	23.60	14.0
Axiata	AXIATA MK	3.18	4.50	41.6
RHB	RHBBANK MK	5.67	7.10	25.2
KL Kepong	KLK MK	21.10	23.90	13.3
Telekom	T MK	5.58	7.80	39.8
Mr. DIY	MRDIY MK	2.00	2.50	25.0
Dialog	DLG MK	2.28	4.90	114.9
Inari	INRI MK	2.78	3.62	30.2
Msia Airports	MAHB MK	6.14	7.16	16.6
Gamuda	GAM MK	3.90	4.40	12.8
ViTrox	VITRO MK	7.25	8.80	21.4
Yinson	YNS MK	2.29	4.05	76.9
Alliance Bank	ABMB MK	3.88	4.50	16.0
Frontken	FRCB MK	3.09	3.55	14.9
Mid-small Caps				
CTOS	CTOS MK	1.39	1.94	39.6
Mega First	MFCB MK	3.36	4.30	27.9
Axis REIT	AXRB MK	1.79	2.12	18.4
Farm Fresh	FFB MK	1.55	1.75	12.9
Allianz	ALLZ MK	13.40	16.75	25.0
Bermaz	BAUTO MK	1.90	2.90	52.6
Hibiscus	HIBI MK	1.07	1.90	77.6
AEON	AEON MK	1.37	2.35	71.5
Berjaya Food	BFD MK	1.06	1.50	41.5
Aurelius	ATECH MK	1.79	2.07	15.6
Cypark	CYP MK	0.39	1.01	162.3

Source: Maybank IBG Research, FactSet (24 Nov)

Stock	BBG Code	Mkt Cap.	Rec.	Price	TP	PER (x)		ROE (%)	Yield (%)	Risk	Risk	Management	Controversy	MIBG ESG	In FBM4G
		(MYRm)		(MYR)	(MYR)	FY22E	FY23E	FY22E	FY22E	Rating*	Score*	Rating*	Score*	Score	Index?^
Filtered Stocks															
Petronas Chemicals	PCHEM MK	72,480	Hold	9.06	9.10	11.5	11.6	16.5%	4.3%	23.7	Medium	Average	0	69	Yes
Hong Leong Bank	HLBK MK	44,872	Buy	20.70	23.60	12.7	11.8	10.9%	2.7%	18.7	Low	Strong	0	76	Yes
DiGi	DIGI MK	31,100	Hold	4.00	3.50	32.0	26.0	nm	3.1%	24.1	Medium	Average	0	67	Yes
Westports	WPRTS MK	11,799	Hold	3.46	3.20	18.6	15.2	19.3%	4.0%	10.4	Low	Strong	1	62	Yes
Inari	INRI MK	10,377	Buy	2.78	3.62	25.0	24.5	15.6%	3.8%	28.1	Medium	Average	0	70	Yes
Sunway	SWB MK	7,529	Hold	1.54	1.63	16.7	14.8	4.4%	1.8%	13.6	Low	Strong	0	74	Yes
Yinson	YNS MK	6,635	Buy	2.29	4.05	17.3	12.1	16.7%	0.9%	21.3	Medium	Strong	1	78	Yes
Bursa	BURSA MK	5,665	Hold	7.00	6.77	25.7	22.8	27.6%	3.6%	13.1	Low	Strong	0	73	Yes
Axis REIT	AXRB MK	2,937	Buy	1.79	2.12	17.2	16.0	6.7%	5.2%	14.9	Low	Average	0	59	No
Bermaz Auto	BAUTO MK	2,209	Buy	1.90	2.90	13.2	9.5	24.5%	4.9%	10.8	Low	Average	0	65	Yes
Momentum Stocks															
MISC	MISC MK	32,496	Hold	7.28	6.95	19.8	18.2	4.8%	4.5%	18.1	Low	Strong	2	71	Yes
RHB Bank	RHBBANK MK	24,083	Buy	5.67	7.10	9.6	8.0	8.6%	5.2%	25.8	Medium	Average	2	65	Yes
Telekom	T MK	21,321	Buy	5.58	7.80	15.4	14.1	16.7%	3.2%	26.1	Medium	Average	2	67	Yes
Gamuda	GAM MK	10,105	Buy	3.90	4.40	11.4	13.9	8.1%	3.2%	35.3	High	Average	1	68	No
ViTrox	VITRO MK	6,849	Buy	7.25	8.80	32.8	28.9	24.1%	0.8%	24.6	Medium	Weak	0	55	Yes

** derived from leading external ESG research & data provider Sustainalytics*

^ FTSE4Good Bursa Malaysia (F4GBM) Index (88 constituents as of Jun 2022)

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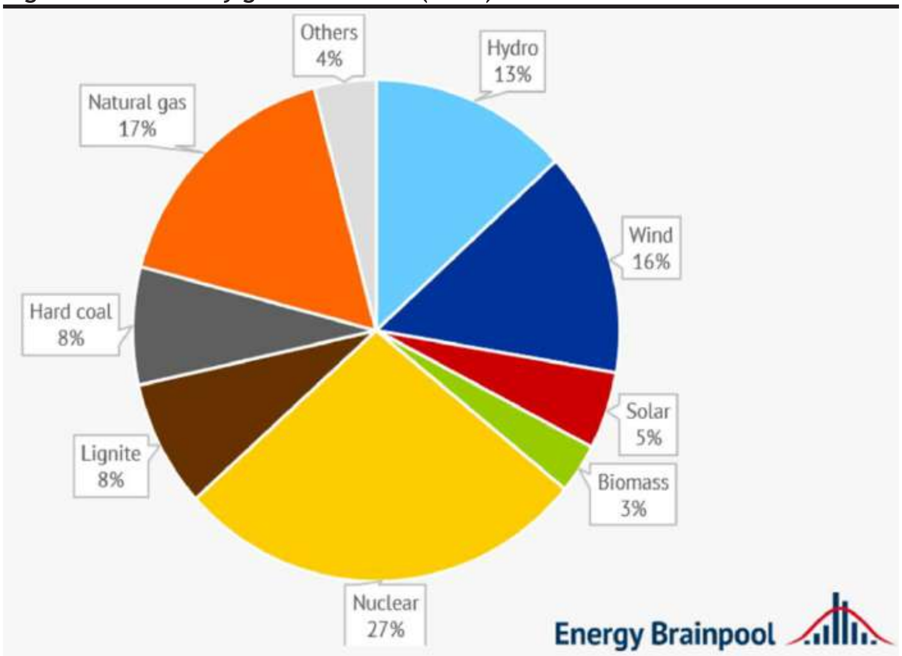
Tearsheets by Sector

Government, regulators jolt corporate complacency

As 2022 kicked off, the global embrace of ESG considerations and Sustainability-centric investing appeared to be relatively straightforward and inevitable. However, the fallout from the Russia-Ukraine conflict, principally a surge in oil and gas prices, has given even the most ardent proponents pause. Many countries have now deferred coal and nuclear plant closures as they grapple with sharply higher energy costs – even the EU, which has provided international leadership when it comes to initiatives and classifications relating to ESG/Sustainability reporting, sustainable finance, climate change and carbon pricing, has had to temporarily "bend the rules" to support energy security and assist the transitioning from / phasing out of coal. In July 2022, the EU voted to keep some specific uses of natural gas (which still emits over 50% as much CO_2 as coal) and nuclear energy (no emissions but has issues re storing of radioactive waste) in its taxonomy of sustainable sources of energy, hence allowing these dominating energy generators (Fig 1) to be labelled as green investments from 2023 onwards.

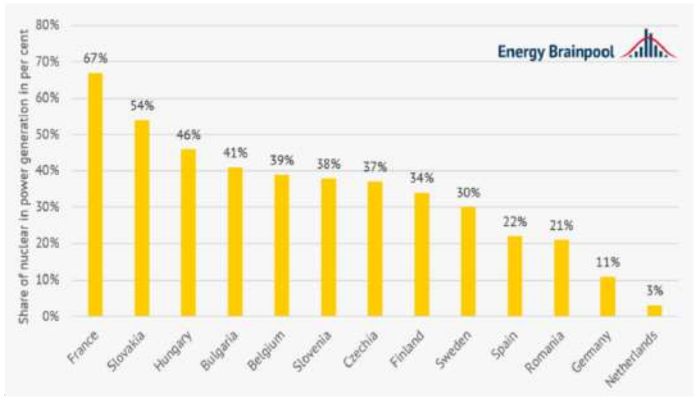
While criticised for extending the EU's dependence on fossil fuels / nuclear (Figs 2-3) and promoting greenwashing, the move nonetheless reflects the reality that energy transition and the transforming of energy infrastructure is a complex and lengthy process, the latter now made both more difficult and more pressing by the global energy price shock following sanctions on Russia. Further, while natural gas and nuclear are now in the EU's green taxonomy and will hence encourage related private investment, recognition is dependent on specified emission thresholds, confirmation that the new gas plants are replacing coal-fired stations, and is only for a specified period of time running into the mid-2030's (to 2045 for eligible new nuclear plants). The EU is also still required to reduce greenhouse gas (GHG) emissions by at least 55% at the end of this decade and to become climate neutral in 2050, per unchanged European Climate Law.

Fig 1: EU: electricity generation mix (2021)



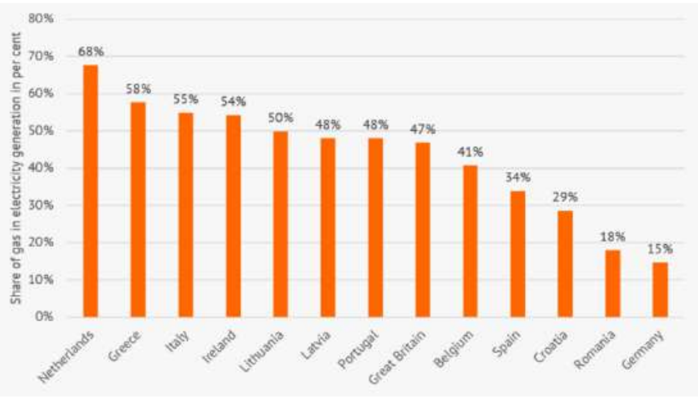
Source: Energy Brainpool

Fig 2: EU: share of electricity generation from nuclear power



Source: Energy Brainpool

Fig 3: EU: share of electricity generation from gas-fired plants



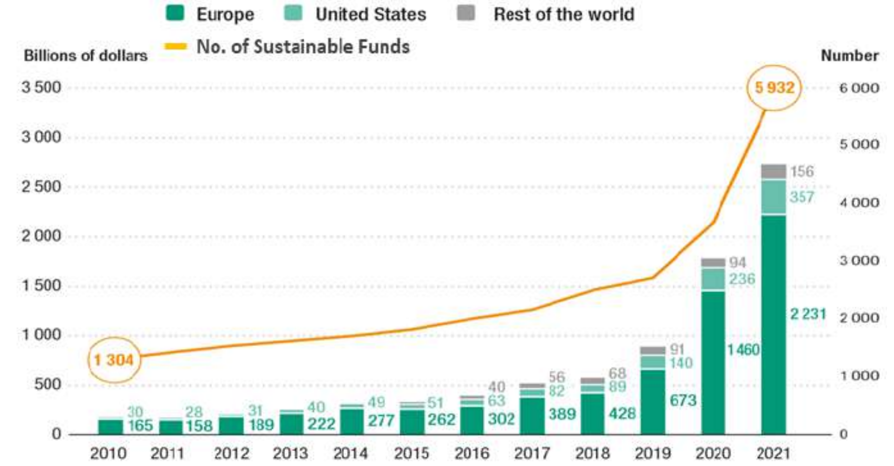
Source: Energy Brainpool

Across the “pond” (i.e. the Atlantic) in the US, the broad push for expanding the integration of ESG and sustainability factors into investment and stewardship processes is facing strong political pushback, as underscored by the case of Blackrock, the largest asset manager in the world and historically a vocal proponent of sustainability, especially on matters concerning climate change. In August 2022, Blackrock CEO Larry Fink was accused in a letter from 19 Republican state attorney-generals (AGs) of selling Blackrock’s customers short (including state pension funds) by pursuing environmental and social justice goals at the expense of shareholder profits. The AGs also contend that Blackrock’s actions with regards the promoting of stakeholder capitalism may be violating state laws surrounding pension funds that require sole focus on maximising financial returns (i.e. the traditional concept of shareholder capitalism).

Blackrock, with its rapidly-growing portfolio of investment products that consider ESG factors alongside financials ones, has responded to the letter by pointing out that with governments representing over 90% of global GDP having committed to move to net-zero in the coming decades, investors and companies would be best served by taking a forward-looking position with respect to climate risk and its implications for the energy transition, so generating better long-term financial outcomes. Further, Blackrock’s engagement with its investee companies is focused on improving disclosures on material issues that affect their businesses so that investors can appraise risks (e.g. climate change) and make informed financial decisions – regulators around the world, including the SEC, are actively setting/raising standards on such disclosures as well. Crucially, Blackrock does not dictate specific emission targets or political lobbying to be engaged in, these being decisions to be made by company management and its’ board of directors.

Notwithstanding Blackrock’s defense, it is likely that the asset manager, along with other multi-trillion dollar index-fund providers like Vanguard and State Street, will tone down their public advocacy of ESG investing while at the same time empowering their investors to vote their own shares, hence deflecting accusations the funds are using their voting power to influence and advance sustainability / decarbonisation agendas. These developments, along with the aforementioned taxonomy controversy in the EU, may dent (but not reverse) the rapid pace of growth in sustainable funds over the past decade, which has been overwhelmingly driven by the EU and US (Fig 4). In 2021, the number of such funds globally reached 5,932 (+61% YoY) while related total assets under management (AUM) reached a record USD2.7t (+53% YoY).

Fig 4: Sustainable funds and AUM, 2010-2021: Asia/Africa share is still tiny



Source: UN – World Investment Report

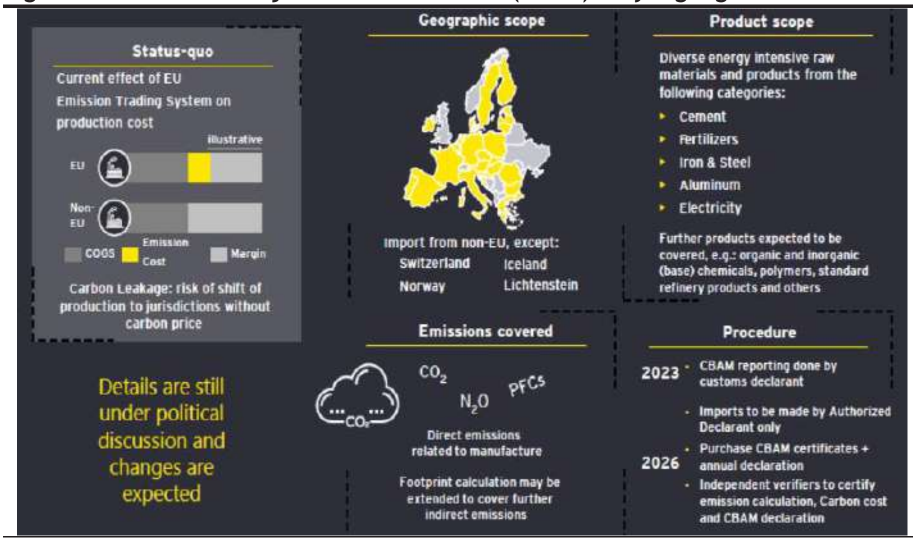
While the current sustainability/ESG-related controversies in the EU and US, as well as broader concerns about a rise in corporate and fund manager greenwashing incidents, may have a near-term drag on the growth of sustainable funds AUM, the underlying secular growth momentum remains strong. In some cases, as in the case of adoption of renewable energy (RE), while the current surge in energy costs brought about by the Ukraine-Russia conflict is pushing many countries to re-embrace cheaper but dirtier fossil fuels like coal and gas, this is a tactical or short-term necessity – the longer-term strategic imperative to improve energy security, economics and environmental impact via boosting RE capacity has actually become much stronger, and capex is being boosted / reallocated accordingly. Governments, regulators and industry groups are also undeterred in pushing ahead with net-zero commitments and related major transition / decarbonisation / offsetting initiatives, the latter including:

the EU's Carbon Border Adjustment Mechanism (CBAM; Fig 5) which will impose a charge on the embedded carbon content of certain imports that is equal to the charge imposed on domestic goods under the EU's own ETS (Emissions Trading System), with adjustments being made to the charge to take into account any mandatory carbon prices imposed in the exporting country;

CORSIA or the Carbon Offsetting and Reduction Scheme in International Aviation was adopted by the International Civil Aviation Organisation (ICAO) in 2016 and requires all airlines to offset their international flight emissions above a baseline, the latter being recently changed to 85% of 2019 levels. CORSIA will be implemented in three phases: a pilot phase (2021-2023), a first phase (2024-2026), and a second phase (2027 – 2035). For the first two phases, participation by the 115 member countries is voluntary – from 2027 onwards, participation will be determined based on 2018 revenue tonne-kilometres (RTK) data; and

the International Maritime Organisation (IMO) is considering placing a price on emissions from international shipping activities. Though IMO's focus remains on improving shipping efficiency and use of alternate fuels, its long-term measures include encouraging and facilitating the general adoption of other possible new/innovative emission-reduction mechanisms, including the use of carbon markets to cut emissions.

Fig 5: Carbon Border Adjustment Mechanism (CBAM): key highlights



Source: EY - Maybank Presentation

From an ASEAN perspective, the near-term sustainability/ESG controversies in the US/EU are no excuse for complacency. Per the Swiss Re Institute's April 2021 report entitled "*The economics of climate change: no action not an option*", the current trajectory of temperature increases, assuming action with respect to climate change mitigation pledges, points to global warming of 2.0–2.6°C by mid-century. The loss in global economic value in this scenario could be up to 10% higher than if the Paris Agreement of much less than 2°C rise in temperatures is reached. Economies in Southeast Asia (ASEAN) countries would be hardest hit, per the sensitivities shown in Fig 6 below, which simulates economic loss impacts from rising temperatures in % GDP, relative to a world without climate change (0°C). In a severe scenario of a 3.2°C-rise in temperatures, the global GDP loss could be as much as 14% higher than that under the Paris targets, with ASEAN GDP being almost halved – Malaysia, Singapore, Indonesia and the Philippines are estimated to be most at risk both globally and within ASEAN.

Fig 6: ASEAN to be hardest hit, with a 17.0% - 37.4% GDP loss estimate

	Temperature rise scenario, by mid-century			
	Below 2°C	2°C	2.6°C	3.2°C
Regions	Paris target	The likely range of global temperature gains		Severe cases
World	-4.20%	-11.00%	-13.90%	-18.10%
OECD	-3.10%	-7.60%	-8.10%	-10.60%
North America	-3.10%	-6.90%	-7.40%	-9.50%
South America	-4.10%	-10.80%	-13.00%	-17.00%
Europe	-2.80%	-7.70%	-8.00%	-10.50%
Middle East & Africa	-4.70%	-14.00%	-21.50%	-27.60%
Asia	-5.50%	-14.90%	-20.40%	-26.50%
Advanced Asia	**-3.30%**	**-9.50%**	**-11.70%**	**-15.40%**
ASEAN	**-4.20%**	**-17.00%**	**-29.00%**	**-37.40%**
Oceania	-4.30%	-11.20%	-12.30%	-16.30%
Indonesia	-4.00%	-16.70%	-30.20%	-39.50%
Malaysia	-4.80%	-22.30%	-36.30%	-46.20%
Philippines	-5.40%	-21.60%	-35.00%	-43.90%
Singapore	-4.90%	-20.20%	-35.60%	-46.40%

Source: Swiss Re Institute (2021)

Some of the "impact channels" from this climate change study that affect ASEAN most severely/negatively are as follows:

Agricultural productivity effects: higher temperatures and carbon concentration levels, and changing precipitation patterns impact crop yields and agricultural productivity. Typically, cold regions see longer, and warm regions shorter growing seasons. Higher GHG concentration levels initially act as fertilizer but over time, the effect of warmer temperatures weighs more heavily and crop yields diminish;

Human-health effects: rising temperatures will likely lead to higher mortality and morbidity of certain diseases. Modelled effects combine the quantitative impacts of climate-induced changes in vector-borne diseases (eg, malaria, dengue), heat and cold related diseases, and diarrhoea;

Labour productivity/heat stress effects: higher temperature and humidity lead to more frequent pauses, interruptions, lower speed and higher probability of injury. More exposed industries, such as agriculture, will suffer more than services;

Sea level rise: rising temperatures lead to thermal expansion of oceans and melting glaciers that drive sea-level rise, leading to land loss through erosion, inundation and salt intrusion. This can lead to economic losses for owners of coastal land that is used for productive purposes;

Tourism flows: warm regions will become less (eg, due to heat, erosion of beaches) and cold regions more attractive as tourist destinations. This will have distributional implications in exports for tourism-dependent countries; and

Household energy demand: rising temperatures will reduce demand for heating oil, but there will be more demand for electric cooling. This will impact energy prices and investments, especially for and in oil.

Most ASEAN countries have committed to net zero by 2050-2060 except the Philippines which has not set any commitments as yet. In terms of carbon tax, per Fig 7 below, Singapore has taken the lead, whereas Indonesia has levied a carbon tax on coal. In terms of carbon markets, Malaysia (see below), Indonesia and Thailand are working towards setting up carbon exchanges. There is clearly an increasingly concerted effort across the region to address climate change but greater speed and resources are needed to improve mitigation, avoidance, adaptation and removal strategies, with ASEAN corporates to play a key role.

Fig 7: ASEAN countries' commitments and status on carbon pricing/markets

Countries	Indonesia	Malaysia	Philippines	Singapore	Thailand	Vietnam
Net Zero	2060	2050	NA	2050	2065	2050
NDC Date of Submission	Jul-21	Jul-21	Apr-21	Mar-20	Oct-20	Sep-20
Emission Reductions						
Unconditional	29%	45%	3%	36%	20%	9%
Conditional	41%		75%		25%	27%
Carbon pricing (in USD)	**Carbon tax (USD2/tCO2e) for coal power, full market by 2025**	**NA**	**Carbon tax and ETS under Consideration**	**Carbon tax (USD4/tCO2e) implemented, to increase to USD40-60 by 2030**	**ETS under Consideration**	**ETS legalised - Pilot Carbon Exchange from 2025**
Voluntary Carbon Exchange	**IDX and ICDX to compete to set up voluntary carbon exchange**	**Bursa Malaysia to launch voluntary carbon exchange by end 2022**	**NA**	**Global voluntary carbon exchange 'Climate Impact X' launched in March 2022**	**Thailand's 11 biggest companies set up a voluntary ETS**	**Planning phase**
Renewables Capacity	48% by 2030	40% by 2035	35% by 2030	15% by 2030	30% by 2030	32% by 2030
	Regional Target of 35% by 2035 (from 24% in 2018)					
Nature	Protect 5.8m ha of forests and 1.9m ha of peatlands by 2030	Protect >20% of terrestrial and 10% of coastal areas by 2025	Eliminate net loss in natural forests, mangrove, seagrass, coral cover by 2028	Plant 1m more trees and add 130ha of new parks by 2030	Increase forest cover to 42% of total area by 2029	Increase forest cover to 42% of total area by 2030

Source: Southeast Asia's Green Economy 2022 Report, Maybank IBG Research

Government: pivoting from "laissez-faire" to multiple "E" initiatives

While the EU and the US have been distracted by the aforementioned ESG-related disputes and controversies, the Malaysian government has, after a worryingly lengthy period of relative nonchalance (as articulated in our maiden Malaysia ESG Compendium report "*Sustainability: No longer optional*", dated April 8), hit the accelerator on sustainability-related policies and initiatives. A key signalling of the country's intent to advance broad national decarbonisation was the updating of its Nationally Determined Contribution (NDC) in August 2021, ahead of COP26 which was held in Glasgow from 31 October to 13 November 2021. In the update, it stated its intention to unconditionally reduce economy-wide carbon intensity (against GDP) of 45% by 2030 compared to 2005 levels. Recall that in the previous version, submitted in 2015, Malaysia committed to reduce, vs. 2005 baseline, its greenhouse gas (GHG) emissions intensity of GDP by 35% unconditionally and a further 10% conditional upon receipt of climate finance, technology transfer and capacity building from developed countries. Per Fig 8 below, Malaysia now has one of the most aggressive and unconditional NDC targets among the ASEAN-6.

Fig 8: ASEAN-6: NDC Targets and Energy / Environmental Policy Updates

Country	Timeframe	Intended Nationally Determined Contributions (INDC) Target	Energy policies and measures
Indonesia	2020 to 2030	**Unconditional:** 29% greenhouse gas emissions reduction by 2030. **Conditional:** Up to 41% of emissions reduction by 2030. BAU scenarios of emission projection started in 2010 with projected emissions of approximately 2,869 $GtCO_2e$ in 2030. Net Zero Emission in 2060	1. Shares of new and renewable energy in the primary energy supply: at least 23% by 2025, and at least 31% by 2030. 2. Mitigation actions and emissions reduction compared to BAU (unconditional; conditional). i) Implementation of clean coal technology in power plants (75%; 100%) ii) Renewable energy in electricity production (7.4GW; 132TWh) 3. Implementation of biofuels in transportation (Mandatory B30) (90%; 100%). 4. Additional gas distribution lines (100%; 100%). 5. Additional compressed-natural gas fuel stations (SPBG) (100%; 100%). 6. PLN (State-owned Utility company) targets 51.6% energy from renewable sources by 2030, targeting to shutdown diesel-based power plant by 2031 and coal-based power plants by 2057. 7. 0% luxury tax for electric vehicles.
Malaysia	2021 to 2030	**Unconditional:** Reduce the greenhouse gas emissions intensity of GDP by 45% by 2030 relative to the emissions intensity of GDP in 2005. There are no longer any conditions relating to foreign financial or technical assistance.	1. Five-Fuel Policy (2001) 2. National Policy on the Environment (2002) 3. National Strategic Plan for Solid Waste Management (2005) 4. National Biofuel Policy (2006) 5. National Energy Policy (2008) 6. National Green Technology Policy (2009) 7. National Policy on Climate Change (2009) 8. New Economic Model, Government Transformation Programme and Economic Transformation Programme (2010) 9. Renewable Energy Policy and Action Plan (2010) 10. Second National Physical Plan (2010) 11. Low Carbon Cities Framework (2011) 12. National Automotive Policy (2014) 13. 12^{th} Malaysia Plan (2021-2025) 14. Malaysia Renewable Energy Roadmap (MyRER) (2021) 15. National Energy Policy (NEP) (2022-2040)
Philippines	By 2030	Undertake GHG (CO_2e) emissions reduction and avoidance of 75%, of which 2.72% is unconditional and 72.29% is conditional relative to the BAU scenario for 2020-2030 for the sectors of agriculture, wastes, industry, transport, and energy.	1. Ecological Solid Waste Management Act of 2000 2. Biofuels Act of 2006 3. Renewable Energy Act of 2008 4. Climate Change Act of 2009 (RA 9729, RA 10174) and requisite policies 5. National Framework on Climate Change 2010-2022 6. National Climate Change Action Plan (NCCAP) of 2011-2028 7. Philippine Development Plan 2017-2022 8. Philippine Energy Plan 2018-2040 9. Philippine National Security Policy 2017-2022 10. National Climate Risk Management Framework of 2019 11. Sustainable Finance Policy Framework of 2020
Singapore	2021 to 2030	Singapore will raise its climate ambition to achieve net zero emissions by or around mid-century, with specific net-zero year to be confirmed at a later date. Reduce the emissions intensity by 36% from 2005 levels by 2030. Stabilise emissions with the aim of peaking around 2030. Reduce the amount of waste-to-landfill per capita per day by 30% by 2030, with minimum charge of SGD5 cts per disposable carrier bag implemented at larger supermarkets in mid-2023.	1. National Climate Change Strategy 2012 2. Energy Conservation Act 2012, Cap. 92C 3. Sustainable Singapore Blueprint 2015 4. Carbon Pricing Act 2018 a. Carbon tax rate will be raised to $25/tCO2e in 2024 and 2025, with long term target of $50-80/tCO2e by 2030 5. Resource sustainability Act 2019 6. Environmental Protection and Management Act, Cap. 94A 7. Environmental Public Health Act, Cap 95 8. Resource Sustainability Act 2019 (No. 29 of 2019) 9. Singapore Green Plan 2030 a. Increase solar energy deployment by five-fold to at least 2 GWp, which can meet around 3% of our 2030 projected electricity demand and generate enough electricity to power more than 350,000 households a year b. By 2030, it is estimated that renewable energy could potentially contribute up to 8% of Singapore's peak electricity demand. c. Green 80% of Singapore's buildings (by Gross Floor Area) by 2030. Best-in-class green buildings to see an 80% improvement in energy efficiency (over 2005 levels) by 2030. 10. The International Maritime Organization's target to reduce greenhouse gas (GHG) emissions from international shipping by at least 50% by 2050 compared to 2008 levels, and to phase out such GHG emissions in this century a. Maritime Singapore Decarburization Blueprint 2050 11. All new car and taxi registrations to be of cleaner-energy models from 2030 and target 60,000 charging points nationwide by 2030, including 40,000 in public carparks and 20,000 in - private premises a. MOT and LTA will introduce legislation on EV charging in 2022. b. LTA to launch charging points tendering for HDB carparks in 2022. 12. The International Civil Aviation Organization's goals of 2% annual fuel

			efficiency improvement by 2050 and carbon neutral growth from 2020. 13. Singapore Sustainable Air Hub Blueprint 2023 14. Energy (Resilience Measures and miscellaneous Amendments) Act 2021 15. Long-Term Low-Emissions Strategy (LEDS) 2022 16. Eco Stewardship Programme (ESP) Toolkit to guide school sector to achieve a two-thirds reduction of net carbon emissions. 17. Diversify electricity supply with low-carbon electricity imports by 2030 a. Lao PDR-Thailand-Malaysia-Singapore Power Integration Project
Thailand	2021 to 2030	**Unconditional:** Reduce greenhouse gas emissions by 20% from the projected business-as-usual (BAU) level by 2030 (BAU 2030: approx. 555 $MtCO_2e$). **Conditional:** Reduce greenhouse gas emissions by 25% from the projected business-as-usual (BAU) level by 2030	1. Power Development Plan B.E. 2558-2579 (2015-2036) 2. Thailand Smart Grid Development Master Plan B.E. 2558-2579 (2015-2036) 3. Alternative Energy Development Plan B.E. 2558-2579 (2015-2036) 4. Energy Efficiency Plan B.E. 2558-2579 (2015-2036) 5. Environmentally Sustainable Transport System Plan B.E. 2556-2573 (2013-2030) 6. Climate Change Master Plan B.E. 2558-2593 (2015-2050) 7. National Industrial Development Master Plan B.E. 2555-2574 (2012-2031) 8. Waste Management Roadmap 9. National energy targets: i) Achieve a 20% share of power generation from renewable sources in 2036 ii) Achieve a 30% share of renewable energy in total final energy consumption in 2036 iii) Reduce the country's energy intensity by 30% below the 2010 level in 2036 10. Power Development Plan B.E. 2561-2580 (2018-2037) 11. Carbon Credit; Carbon Neutral (CN) in 2050 and Net Zero emissions (NZ) in 2065 12. Low Carbon Society; Zero Emission Vehicle target at least 30% of total production in 2030
Vietnam	2021 to 2030	**Unconditional:** Reduce national GHG emissions by 43.5% compared to BAU by 2030. Total GHG emission peaks in 2035 and reaches neutrality by 2050.	1. Resolution 55-NQ/TW (Feb 2020) about national energy development into 2030 and vision into 2045 2. Decision 896/QĐ-TTg (Jul 2022) about national climate change strategy into 2050 3. Measures: - Reduce methane emission by 30% by 2030 and 40% by 2050 compared with 2020 level. - Monitor GHG emission reduction of factories emitting larger than 3,000 tCO2e since 2022, 2,000 tCO2e since 2030, 500 tCO2e since 2040, and 200 tCO2e since 2050. Develop and implement emission quota framework since 2026. - Develop renewable energy to contribute at least 33% of total electricity generation by 2030 and 55% by 2050.

Source: Maybank IBG Research (compilation)

In Malaysia's latest biennial update report (BUR) submitted to the UNFCCC (United Nations Framework Convention on Climate Change) in 2020, meeting NDC goals have been underpinned by emissions avoidance coming from three main sectors: energy, waste and forestry (Fig 9). Forestry is by far the biggest share, encompassing emissions avoidance via reducing deforestation, sustainable management of permanent reserved forest, forest certification schemes and other initiatives. Some key details of mitigation measures are as follows:

> **Energy:** the deployment of RE has gained momentum since the launch of the National Renewable Energy Policy and Action Plan in 2010, the Renewable Energy Act 2011 and the Sustainable Energy Development Authority (SEDA) Act 2011. The latter enabled SEDA to administer the Feed-in-Tariff mechanism as well as established the Renewable Energy Fund to supplement the FiT scheme. In enhancing energy efficiency implementation, a National Energy Efficiency Action Plan (NEEAP) was introduced in 2016 targeting the residential, commercial and industrial sectors – key initiatives include 5-star rated appliances, minimum energy performance standards (MEPS), energy audits and energy management in buildings and industries, co-generation as well as energy efficient building design. On the latter, existing government buildings will be gradually retrofitted while industry players will be encouraged to obtain green certification such as the Green Building Index (GBI), or Green RE for private buildings.

Waste: the National Solid Waste Management Policy 2006 and the Eleventh Malaysia Plan has set a target of 22% recycling in 2020. The revised National Solid Waste Management Policy 2016 targets a redirection of 40% of the waste, away from waste disposal sites, out of which 22% is carried out through recycling and 18% through waste treatment. A survey conducted by the Solid Waste and Public Cleansing Management Corporation (SWCorp) shows that there is an increase of recycling rate materials from 17% in 2015 to 21% in 2017.

Forestry: as a net sink and a significant contributor to Malaysia's GDP, focus is on strengthening the sustainable forest management implementation and conservation efforts of the country and enhancing the forest sinks. Over the years, Malaysia has put in place measures to maintain at least 50% of its land mass as forest. Both sustainable management of Permanent Reserved Forest (PRF) and conservation are being strengthened. For sustainable harvesting of timber, a forest certification scheme began in 2001 with the adoption of the Malaysian Criteria and Indicators for forest management certification. The annual allowable cut in the PRF is capped at 85 m3 /ha for each of the Malaysia Plan period and the overall national harvest level has been on the decline since 2001. Malaysia's Protected Area (PA) network, which forms the backbone for the maintenance of biodiversity and of ecosystem services, is an impressive result of decades of work. A target is set to increase the Protected Area to at least 20% by 2025. Between 2014 and 2016, the Protected Area increased from 2.757 to 3.171 million ha.

Fig 9: Malaysia: Summary of Emissions Avoidance Achieved in 2016

Sector	Sub-sector	Mitigation Actions	Emissions avoidance achieved in 2016 (Gg CO_2 eq.)
Energy	Renewable Energy (Power)[a]	Feed-in-Tariff (FiT)	460.52
		Hydropower	6,570.15
		Other RE by public and private licensees	231.92
	Energy Efficiency[a]	National Energy Efficiency Action Plan (NEEAP)	458.02
	Transportation	Rail based public transport	212.93
		Use of energy-efficient vehicles	90.65
		Use of palm-based biodiesel in blended petroleum diesel	1,127.34
		Use of natural gas in vehicles	114.77
Waste	Paper recycling		3,937.76
	Biogas recovery from palm oil mill effluent		2,377.84
Forestry	Reducing deforestation, Sustainable management of forest and Conservation of carbon stocks		20,307.50

[a]As general rule, the emissions avoidance from mitigation actions such as renewable energy (renewable electricity) and energy efficiency are quantified based on the emissions avoidance from displacing and/or reducing the consumption of grid-electricity. In this regard, three grid-electricity emission factors were used for Peninsular Malaysia, Sabah and Sarawak which were 0.639 tonnes CO2/MWh, 0.512 tonnes CO2/MWh and 0.249 tonnes CO2/MWh respectively.

Source: Malaysia BUR3-UNFCCC Submission

The 12th Malaysia Plan (12MP), which was presented to Parliament in September 2021, is a development roadmap for 2021 to 2025, and clearly affirmed the government's commitment to engineering a nationwide shift to more sustainable economic practices and lifestyles that value natural endowments and environmental health. Advancing Sustainability is one of the three themes of the 12MP, the other two being Resetting the Economy and Strengthening Security, Wellbeing and Inclusivity. Two "game changers" are to be introduced under Advancing Sustainability namely:

Embracing the circular economy: apart from creating green job opportunities and ensuring resource security, the circular economy will reduce waste generation, pollution, GHG emissions and dependency on natural resources. To expedite the transition, an enabling ecosystem will be put in place (Fig 10; also see Appendix 2 for a useful graphic comparing the Linear Economy vs. the Circular Economy), the use of recycled materials and recycling of production waste will be increased, while the responsibility of producers in managing their end-of-life products will be extended; ***and***

Fig 10: Embracing the Circular Economy: Why, How and What?

Why do we need to embrace the circular economy?	How will it be achieved?	What will success portray?
Malaysia aims to transform itself from the conventional linear economy model to the sustainable circular economy model. This will enable the country to: • Achieve a systemic shift towards long-term resilience. • Eliminate unsustainable consumption and production practices. • Address the issues of climate change, environmental degradation and biodiversity loss.	The implementation of the circular economy model requires a comprehensive set of initiatives that include: • Adopting the whole-of-nation approach involving all stakeholders. • Integrating the SDGs and environmental, social and governance (ESG) principles into decision-making. • Enhancing policies, regulations, green financing and economic instruments. • Encouraging businesses to develop the circular economy design and the sharing economy model. • Increasing smart partnerships and triple-helix collaboration.	• Sustainable, low-carbon and resilient nation. • Reduced GHG emissions intensity to GDP up to 45% by 2030 based on emissions intensity in 2005. • Increased recycling rate of household waste by 40% and scheduled waste by 35%. • Reduced incidence of pollution. • Reduced dependency on natural resources and maintaining at least 50% forest cover. • Increased share of government green procurement to 25%. • Increased green financing, investments, businesses and jobs. • Change in mindset and behaviour in adopting green practices.

Source: Twelfth Malaysia Plan

Accelerating adoption of the Integrated Water Resources Management (IWRM): ineffective management of water resources, inadequate understanding and lack of awareness have created environmental and social challenges which have impacted economic growth. A comprehensive water transformation agenda (Fig 11) focused on accelerating the adoption of IWRM will encompass strengthening the governance of water resources to manage water resources effectively through revising existing laws and establishing an integrated centre for water data and R&D&C&I. Financial sustainability of water service providers will also be improved to enhance efficient service delivery.

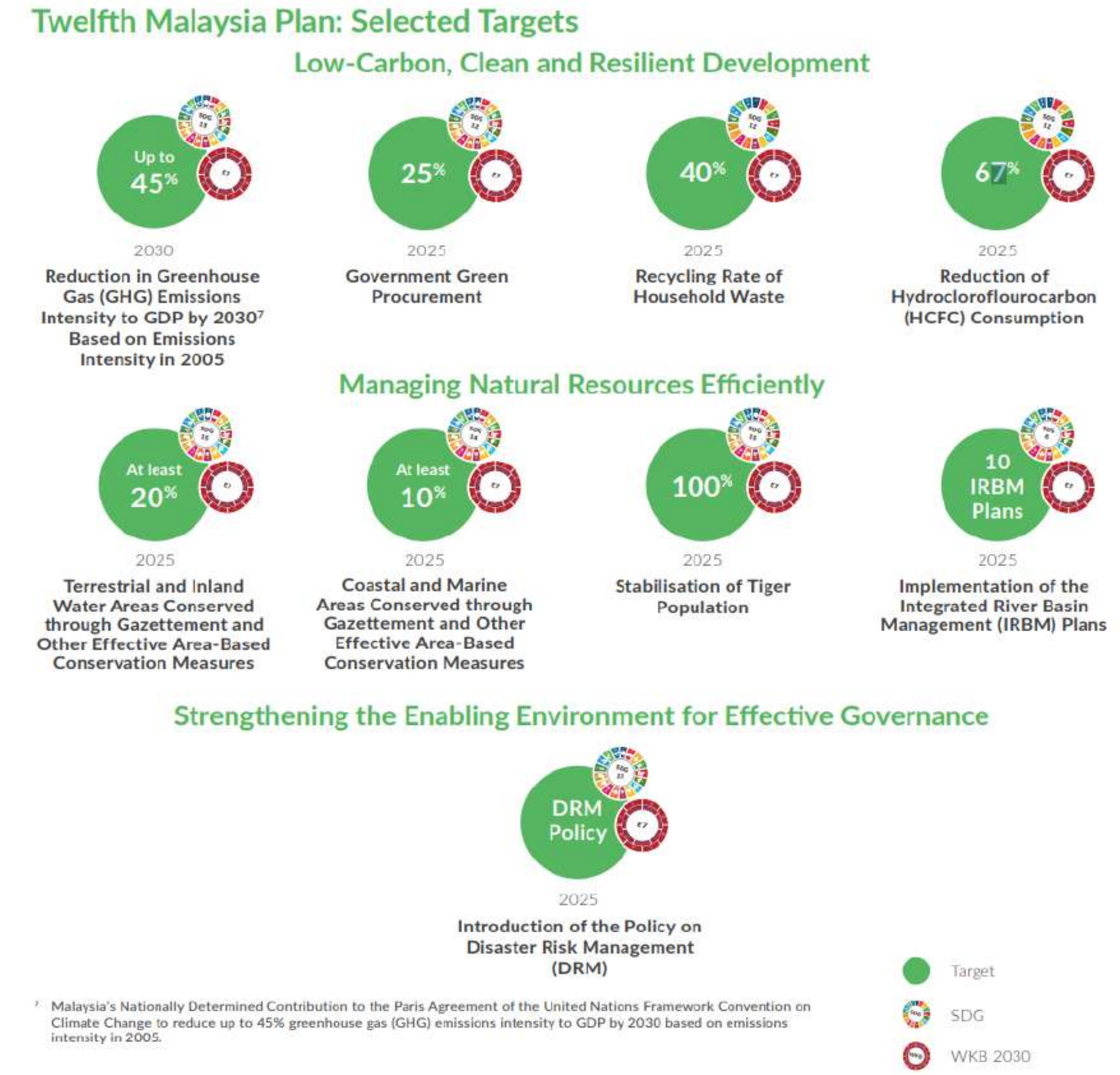
Fig 11: Accelerating Adoption of Integrated Water Resources Management: Why, How and What?

Why do we need to accelerate adoption of IWRM?	How will it be achieved?	What will success portray?
Water resources management will require a more cohesive approach aimed at addressing longstanding issues such as: • Uncoordinated management of water resources. • Absence of integrated database. • Lack of awareness and participation among stakeholders. • Weak collaboration among Federal Government, state governments and local authorities. • Negative impact of land use change on water resources.	The Twelfth Plan will focus on the following initiatives: • Introducing the Water Sector Transformation 2040 (WST 2040) agenda. • Establishing single water management agency. • Revising existing laws and formulating new ones to strengthen governance and enforcement. • Promoting innovative financing mechanisms with more involvement of the private sector. • Establishing an integrated centre for water data and R&D&C&I to enhance data-driven decision-making. • Introducing Tariff Setting Mechanism to ensure financial sustainability. • Adopting the whole-of-nation approach.	• The water sector as an important contributor to national growth. • Coverage of access to clean and safe water in rural area increased to 98%. • Non-revenue water level reduced to 25%. • More clean rivers. • Reduced disruptions in water supply and water-related disasters.

Source: Twelfth Malaysia Plan

Among key 12MP signposts, initiatives and targets (Fig 12), Malaysia is indicated to have achieved 24.9% reduction in GHG emissions intensity by end-2016, and the NDC target of reaching a 45% reduction by 2030 was reaffirmed. In enabling this goal to be reached, as well as the target of being carbon-neutral as early as 2050, carbon pricing and carbon tax will be introduced, as will a comprehensive National Energy Policy (NEP) to provide long-term strategic direction re achieving carbon neutrality. Further, a National Adaptation Plan (MyNAP) will be formulated relating to the impact of climate change, and will include long-term action plans and strategies for various sectors, including public health, infrastructure, water resources, agriculture, forestry and biodiversity.

Fig 12: 12MP: Selected Targets re Low-Carbon, Clean and Resilient Development

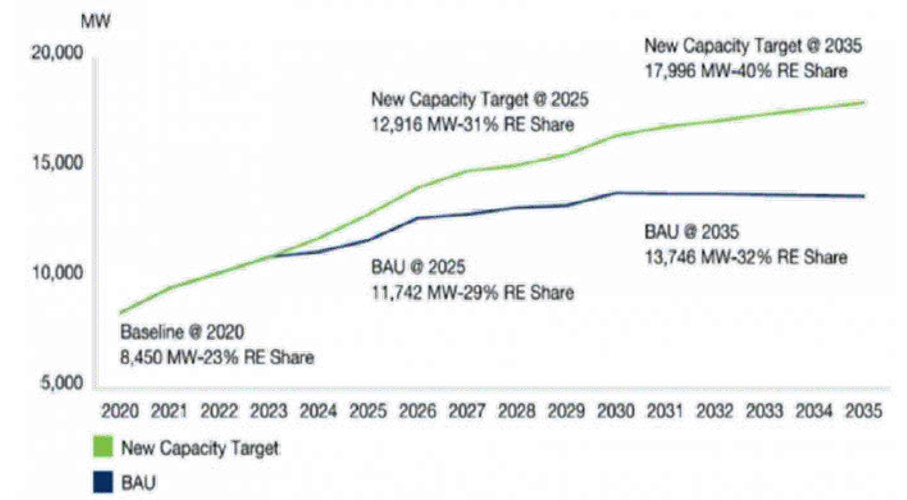


Source: Twelfth Malaysia Plan

Government ministries and agencies are also showing greater urgency in articulating sustainability initiatives and goals. Of particular note, the Ministry of Environment and Water (KASA) is in the midst of developing the Long-Term National Low Carbon Development Strategy, in line with the government's aspiration to achieve net zero carbon emissions by 2050. KASA has been developing a carbon market policy framework to provide basic guidance for carbon credit transactions in Malaysia – in Sept 2021, the government agreed to a proposal by KASA in developing a Voluntary Carbon Markets (VCM) as a reference for international carbon credit transactions. The government will also develop a Domestic Emissions Trading Scheme (DETS) to catalyze the carbon trading sector in Malaysia – DETS will be implemented in phases, following the development of a single transactions platform via Bursa Malaysia (see below, Regulator section, for more details on the VCM and DETS).

The Sustainable Energy Development Authority (SEDA) launched the Malaysia Renewable Energy Roadmap (MyRER) in Dec 2021. At the headline level, the national renewable energy (RE) target (as a share of total installed generating capacity) has been revised higher to 31% (from 20% previously) and 40% by 2025 and 2035, respectively (Fig 13) – this is a fairly steep increase given the RE share is at 23% currently, and is also one of the most aggressive among the ASEAN-6 nations (Fig 14). Solar energy will play a key role in reaching these targets – aside from continuing new capacity or quota allotments (e.g. Large Scale Solar or LSS schemes, now in its fourth phase, which allows successful bidders to generate electricity via solar PV farms with installed capacity ranging from 1MW to <30MW and sell to the grid via power purchase agreements or PPAs), solar investments are also being supported by fiscal incentives i.e. Budget 2023 has proposed to extend the Green Investment Tax Allowance (GITA) and Green Income Tax Exemption (GITE) to 5 years (i.e. to 31 Dec 2025), from 3 years previously, for eligible green activities e.g. solar integrated with Battery Energy Storage System.

Fig 13: SEDA: BAU vs. New Capacity Target (NCT) scenarios for RE share



Source: SEDA

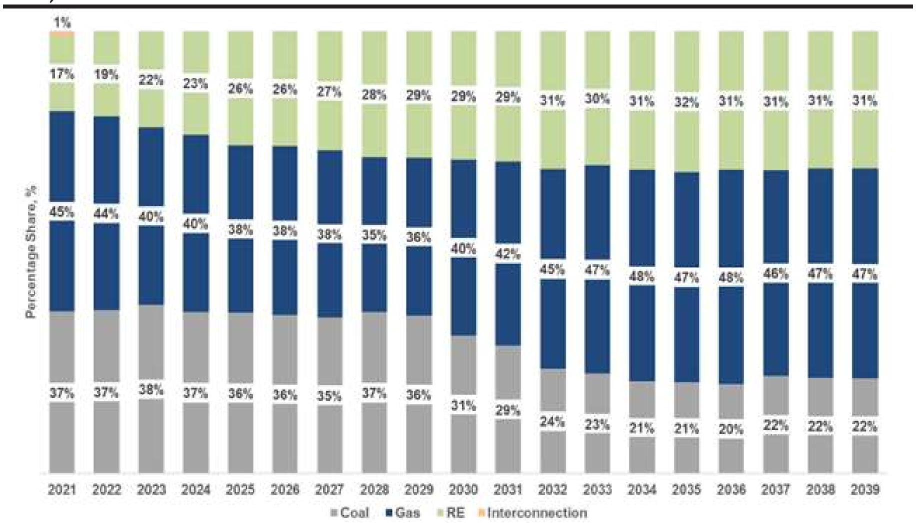
Fig 14: Overview of renewable (RE) share targets in major ASEAN countries

	Malaysia	Indonesia	Philippines	Thailand	Vietnam	Singapore
Latest RE policy	MyRER 2035	National Energy Roadmap	Sectoral Energy Plan & Roadmap	Power Development Plan	Power Development Plan	Singapore's Energy Story
Year of latest RE policy	2020	2017	2017	2019	2019	2019
Overall RE targets	31% RE installed capacity by 2025, 40% by 2035	RE installed capacity by 45 GW by 2025, 168 GW by 2050, 31% of national primary energy supply in 2050	RE installed capacity of 20 GW by 2040	33% RE installed capacity by 2037 with RE mix as following • Solar 6 GW • Biomass 5.57 GW • Wind 3 GW • Hydropower 3.3 GW • Biogas 0.6 GW • MSW 0.5 GW	32% RE installed capacity by 2030, 45% by 2050	At least 2 GW of solar by 2030, and energy storage deployment target of 200 MW post 2025

Source: Malaysia Renewable Energy Roadmap

At the same time, underscoring the need to transition / decarbonise in a progressive, non-disruptive manner, the current dominance of coal power plans in Peninsular Malaysia's generation mix will be supplanted by natural gas power plants from 2030 onwards (Fig 15; pre-MyRER NCT forecasts) as some existing generating coal plants are retired. Incorporating the revised SEDA targets for RE and also noting that national power utility Tenaga itself is exploring early shutdowns and/or conversions for some of its coal plants (see below), the capacity share of fossil fuel-based generation (coal and gas) will be substantially lower by 2035, potentially falling towards 50% in a blue-sky scenario (Fig 16).

Fig 15: Peninsular Malaysia: Capacity mix by fuel (%) (2021 – 2039; pre-MyRER NCT)



Source: Report on Peninsular Malaysia Generation Development Plan 2020

Fig 16: Malaysia: capacity mix for BAU and New Capacity Target scenarios for 2020, 2025 and 2035

		Scenario BAU	Scenario New Capacity Target	Scenario BAU	Scenario New Capacity Target
Installed capacity	**2020**	**2025**	**2025**	**2035**	**2035**
Gas	36%	37%	36%	42%	41%
Coal	37%	32%	31%	24%	18%
Hydro	16%	14%	14%	18%	18%
Others	3%	3%	3%	3%	2%
RE	8%	14%	17%	14%	22%
Total capacity (MW)	**35,983**	**41,029**	**42,292**	**42,983**	**45,588**
RE Share	**2020**	**2025**	**2025**	**2035**	**2035**
Malaysia RE share (%)	23%	29%	31%	32%	40%
Peninsular Malaysia solar penetration (%)	N/A	18%	24%	15%	30%

Source: Malaysia Renewable Energy Roadmap

Consolidating and further advancing the aforementioned decarbonisation efforts, the National Energy Policy (NEP) 2022-2040 was launched on Sept 19, 2022 with the aim, via 12 strategies and 31 action plans, of improving economic resilience and ensure energy recovery while achieving equality and universal access as well as ensuring environmental sustainability. The NEP is a "living document" (to be updated every 3 years) and will serve to streamline and harmonise various existing policies and ensure a coordinated energy sector response to re challenges and targets. The Low Carbon Nation Aspiration 2040 (LCNA 2040), which is part of the NEP, has the following targets (Fig 17), principally: **i)** to achieve 50% public transport share by 2040; **ii)** at least 38% EV usage by 2040; **iii)** introducing fuel with a 30% biodiesel (B30) mixture as an alternative fuel for heavy vehicles; **iv)** a 25% use of LNG as an alternative fuel in the marine transport industry; **and v)** energy savings of up to 11% for commercial and industrial use, and 10% for residences by 2040.

Of the above, one area where we hope to see acceleration and clarifications is with regards the EV usage target – at this juncture, it is unclear if the 38% refers to the number of EVs on the road or annual sales, or if it refers to only battery electric vehicles (BEVs) or also includes HEVs (hybrid electric vehicles) and PHEVs (plug-in hybrid vehicles), the latter tending to still use significant amounts of petrol. Crucially, there is as yet no policy to phase out ICEVs (internal combustion engine vehicles – Thailand, Indonesia and Singapore have already indicated they will discontinue the sale of ICEVs by 2035, 2040 and 2040, respectively. Further, while Budget 2023 extended tax breaks for CBU BEVs, there were no new measures announced for CKD EVs, which is an additional deterrent to auto OEMs seeking an ASEAN location for EV manufacturing.

Fig 17: LCNA 2040: selected targets vs. 2018

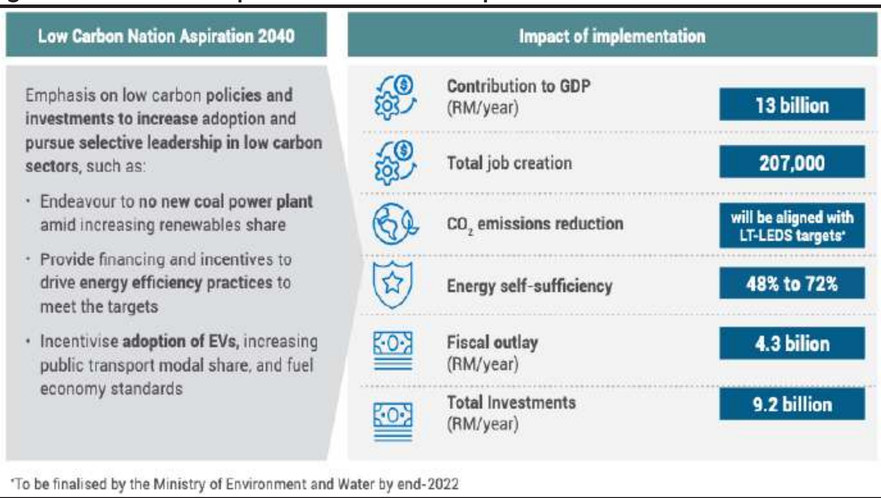
Selected Targets	2018	Low Carbon Nation Aspiration 2040
1. Percentage of urban public transport modal share	20%	50%
2. Percentage of electric vehicle (EV) share	<1%	38%
3. Alternative fuel standard for heavy transport	B5	B30
4. Percentage of Liquefied Natural Gas (LNG) as alternative fuel for marine transport	0%	25%
5. Percentage of industrial and commercial energy efficiency savings	<1%	11%
6. Percentage of residential energy efficiency savings	<1%	10%
7. Total installed capacity of RE	7,597 MW	18,431 MW
8. Percentage of coal in installed capacity	31.4%	18.6%
9. Percentage of RE in TPES	7.2%	17%

Legend: Energy security Energy affordability Environmental sustainability

Source: National Energy Policy, 2022 - 2040

The LCNA is expected to require c.MYR9.2bn in investments annually, with over 200,000 jobs to be created and an annual c.MYR13b contribution to GDP. The execution will span multiple 5-year Malaysia Plan periods (Fig 18) with some key milestones of note including the phasing down of broad-based energy subsidies (i.e. moving to market-based pricing), adoption of large scale energy storage for RE and pilot programmes relating to generation and utilisation of hydrogen and next generation bioenergy.

Fig 18: LCNA 2040: Implementation Roadmap



Source: DTN Project Team Analysis, National Energy Policy, 2022 - 2040

Regulators: working in concert to raise Malaysia's sustainability bar

Even as Malaysia's top-down sustainability policies and targets are seeing a significant step-up in terms of speed and coordination, domestic financial market regulators continue to lead the way from a bottom-up perspective, spurred by a rapidly evolving global sustainability framework and its increasingly assertive directives on integrating the consideration of ESG risks and opportunities into the processes of all financial stakeholders, from corporates to asset owners, down to the individual investor. Some key regulator initiatives of note are as follows:

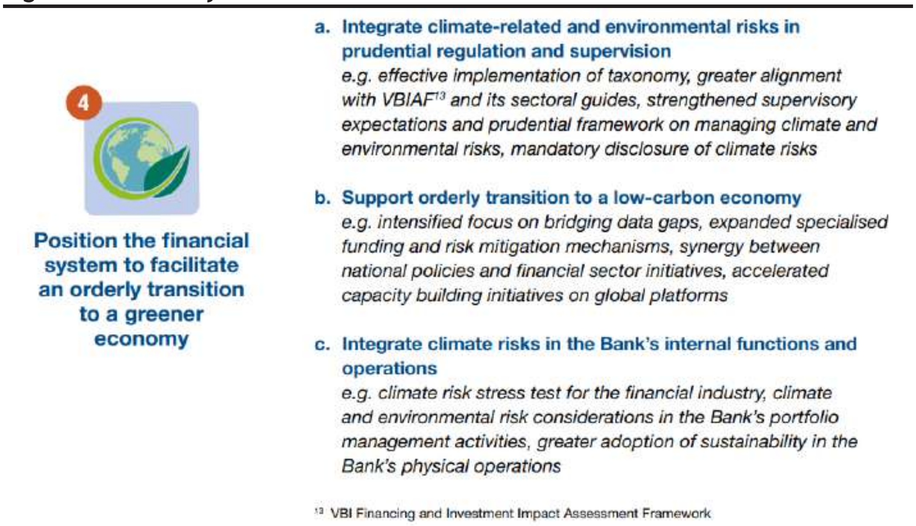
Bank Negara Malaysia (BNM): in February 2022, BNM launched the Malaysia Financial Sector Blueprint 2022-2026 (FSB) which sets out the development priorities for the financial sector over the next five years. The three broad themes of the blueprint – Finance for all, Finance for transformation and Finance for sustainability - and the related 2026 targets to be achieved are shown in Fig 19 below. These themes will be supported by five strategic thrusts – Funding Malaysia's economic transformation, Elevating the financial well-being of households and businesses, Advancing digitalisation of the financial sector, Positioning the financial system to facilitate an orderly transition to a greener economy and Advancing value-based finance through Islamic finance leadership.

Fig 19: FSB: Desired outcomes and targets for 2026

Source: BNM Financial Sector Blueprint 2022-2026

Focusing on the issues relating to the positioning of the financial system to facilitate an orderly transition to a greener economy, the key deliverables and intended outcomes are per Fig 20 below. A key priority is Value-based intermediation (VBI) which aims to re-orient finance business models towards generating positive and sustainable impacts to the economy, community and environment through practices, processes, offerings and conduct. BNM expects a steady growth in VBI-aligned assets as well as broadly better quality disclosures to support market incentives for more responsible and ethical finance, as well as around the issue of climate risk (see JC3 below re related developments). On the latter, BNM envisages an increasing share of financial flows towards climate supporting and transitioning activities i.e. by 2026, the expectation is that more than 50% of new financing will be classified as C1, C2 and C3 under the Climate Change and Principle-based Taxonomy (CCPT; where C1, C2 and C3 represent economic activities that are classified as "climate supporting" or "transitioning" in terms of their contribution towards climate and environmental objectives.

Fig 20: FSB: Positioning the financial system to facilitate an orderly transition to a greener economy



Source: BNM Financial Sector Blueprint 2022-2026

Joint Committee on Climate Change (JC3): the JC3 was formed in Sept 2019 to pursue collaborative actions for building climate resilience within the Malaysian financial sector. Co-chaired by Bank Negara (BNM) and the Securities Commission (SC), JC3 has signalled areas of priority re managing exposures to climate risks and facilitating businesses to transition towards sustainable practices by forming four sub-committees namely **i)** risk management; **ii)** governance and disclosure; **iii)** product and innovation; **and iv)** engagement and capacity building. In June 2022, the JC3 published the Task Force on Climate-related Financial Disclosures (TCFD) application guide for Malaysian financial institutions, the primary underlying aim being to support financial institutions who are stepping up efforts to implement the TCFD Recommendations in phases beginning 2022.

The application guide, having taken into account the distinctive nature of each disclosure recommendation, proposes that the timeframe for implementation of all "basic" recommendations contained therein is within a period of 24 months (i.e. by June 2024). As "stretch" recommendations are linked to more sophisticated underlying practices, their adoption should be dependent upon a financial institution's overall climate risk exposure and/or complexity of operations (i.e. the institutions are to conduct their own assessment and come up with a corresponding implementation timeline). Drilling down to the issue of key climate-related targets, it is recommended that they be quantitative and granular enough to enable tracking – Fig 21 below provides illustrative examples of quantitative, granular targets across cross-industry, climate-related metrics.

Fig 21: TCFD Application Guide: Illustrative / Quantified targets

Cross-Industry, Climate-Related Metrics	Quantified, Climate-Related Targets (illustrative)
GHG emissions (Absolute Scope 1, Scope 2, and relevant, material categories of Scope 3 emissions, as well as carbon intensity)	• Reduce net Scope 1, 2, and 3 emissions to zero by 2050, with an interim target to cut emissions by 70% relative to a 2015 baseline by 2035.
Carbon price(s) (external and shadow/internal)	• Increase shadow carbon price to $150 by 2030 to reflect potential changes in policy • Not applicable for external carbon price
Proportion of assets and/or operating, investing, or financing, activities materially exposed to physical risks, based on key categories of commonly accepted risks	• Reduce percentage of asset value exposed to acute and chronic physical climate-related risks to 50% by 2050 • Ensure at least 60% of flood-exposed assets have risk mitigation in place in line with the 2060 projected 100-year floodplain
Proportion of assets and/or operating, investing, or financing activities materially exposed to transition risks, based on key categories of commonly accepted risks	• Reduce percentage of asset value exposed to transition risks by 30% by 2030, relative to a 2019 baseline
Proportion of assets and/or operating, investing, or financing activities aligned toward climate-related opportunities, based on key categories of commonly accepted opportunities	• Increase net installed renewable capacity so that it comprises 85% of total capacity by 2035
Amount of senior management remuneration impacted by climate considerations	• Increase amount of senior management remuneration impacted by climate considerations to 50% by 2025
Amount of expenditure or capital investment deployed toward climate risks and opportunities	• Invest at least 25% of annual capital expenditure into renewable energy • Lend at least 10% of portfolio to projects focused primarily on physical climate-related risk mitigation

Source: TCFD Application Guide for Malaysian Financial Institutions

A joint-statement following the 8th meeting of JC3 in August 2022 indicated a focus on the following priorities:

Climate change and Principle-based Taxonomy (CCPT): financial institutions have submitted the first report on the application of the CCPT to BNM. The JC3, through the CCPT implementation group (CCPT IG), is working with the industry and its partners to further improve the consistency and quality of classifications under the CCPT for existing outstanding financing and investments. The CCPT IG will publish and maintain a set of CCPT FAQs on application issues to promote more consistent practices across financial institutions. It has also developed a due-diligence questionnaire together with the World Wide Fund Malaysia on selected CCPT-guiding principles, the questionnaire aiming to help financial institutions capture important information from customers and counterparties in a more consistent manner. This will serve to promote robust classifications of climate supporting and transitioning activities and reduce additional burdens for customers and counterparties of banks to provide such information to multiple financial institutions;

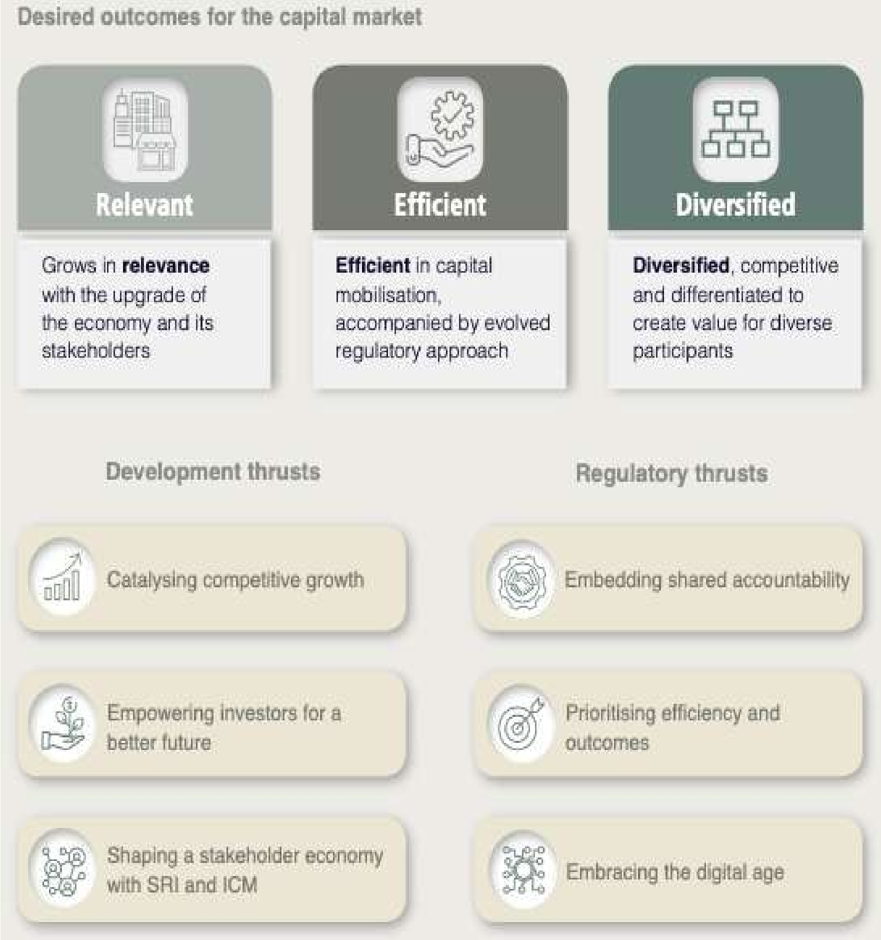
ESG support for SMEs: the JC3 is now supporting Capital Markets Malaysia, an affiliate of the SC, to develop an ESG Disclosure Guide tailored to Malaysian small and medium enterprises (SMEs); The Guide aims to improve the quality of and access to information on business resilience to ESG-related risks to ensure practical adoption by SMEs and larger businesses, while ensuring alignment in the disclosure initiatives undertaken by JC3 with global disclosure frameworks, including that being developed by the International Sustainability Standards Board (ISSB), to promote comparability and minimise compliance costs for businesses and financial institutions going forward.

SRI-linked Sukuk Framework: on 30 June 2022, the JC3 welcomed the issuance of the Sustainable and Responsible Investment-linked (SRI-linked) Sukuk framework by the SC to facilitate companies to issue SRI-linked Sukuk to support their transition towards low-carbon activities (see SC section below for further information). To further scale up sustainable financial offerings by financial institutions, JC3 is actively exploring suitable **pilot programmes** to test new green solutions and instruments such as blended finance to support the development of climate-friendly projects; and

Data Catalogue: the data catalogue is a key deliverable of JC3 to address the data needs of the financial sector by pointing users to credible sources of critical climate data needed to support identified use cases, noting however, that material gaps still exist within existing data sources. The catalogue is on track for publication by the end of 2022, and will be accompanied by a brief report on the data availability, gaps and specific recommendations to bridge data gaps.

Securities Commission (SC): the statutory body entrusted with the responsibility of regulating and developing the Malaysian capital market, launched its third Capital Market Masterplan (CMP3) 2021-2025 in Sept 2021. CMP3 is to serve as a strategic framework for the growth of Malaysia's capital market over the next five years via more efficient mobilisation of capital into productivity sectors of the economy, and greater diversity in the market i.e. a multi-layered market, supported by a competitive and technology-enabled intermediation landscape. These objectives are underpinned by three key development thrusts and three key regulatory thrusts as shown in Fig 22 below.

Fig 22: Overview of the CMP3



Source: Capital Market Masterplan 3

A key element of CMP3 is the laying out of initiatives that will mobilise more capital towards sustainable businesses, per its Sustainable and Responsible Investment (SRI) and Islamic Capital Market (ICM) pillars. It was estimated by Bursa Chairman Tan Sri Wahid Omar, speaking at the "*Invest Malaysia: Pivoting for the Future*" conference on Sept 14, that Malaysia would require cumulative investments of MYR350b to MYR400b to finance its efforts to become a nation with net-zero GHG emissions by 2050. In June 2022, the SC launched its launched the Sustainable and Responsible Investment linked (SRI-linked) Sukuk Framework (Framework) to facilitate fundraising by companies in addressing sustainability concerns such as climate change or social agenda. The Framework is an extension of the initiatives under the SRI Roadmap that was introduced in 2019 to broaden SRI products offerings, and also reflects the SC's commitment to expand the reach of the Islamic Capital Market (ICM) to the broader stakeholders of the economy and build an enabling ICM ecosystem for the sustainability agenda.

The financial and/or structural characteristics of an SRI-linked sukuk vary depending on whether the issuer meets selected key performance indicators (KPIs) and pre-defined sustainability performance targets (SPTs). Under the framework, proceeds from the SRI-linked sukuk can be utilised for general purposes (i.e. need not be a "green" project per se) subject to the requirement that the issuer must commit to future improvements for sustainability outcomes within a certain timeframe. Such improvements will be monitored using selected KPIs and SPTs which shall be calibrated by the issuer. The KPIs must, among other things, be significant to the issuer's sustainability and business strategy, address relevant ESG challenges in the issuer's industry, and be within the issuer's control. In addition, the SPTs must be:

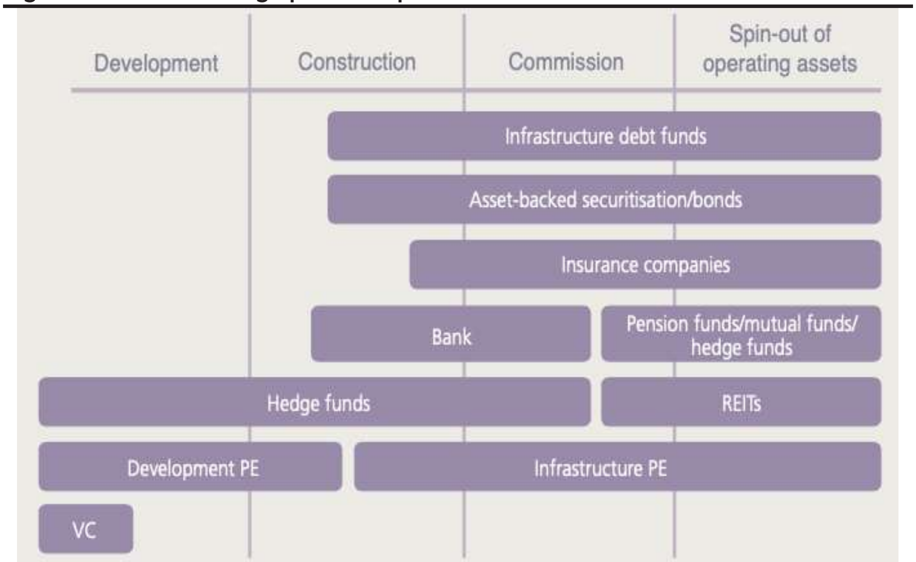
- Ambitious yet realistic;
- A material improvement in the respective KPIs and be beyond a "business as usual" trajectory;

- Comparable to a benchmark or an external reference;
- Consistent with the issuer's overall ESG strategy; and
- Set before, or concurrently with, the issuance of the SRI-linked sukuk.

An external reviewer and an independent verifier must be appointed before and after issuance of SRI-linked sukuk. The external reviewer and independent verifier are responsible to provide reports that are made by assessing the issuer's compliance with the Framework and the requirements under the LOLA (Lodge and Launch Framework) Guidelines. Further, the issuer must publish the verifier's report and updated information on its sustainability performance on the designated website.

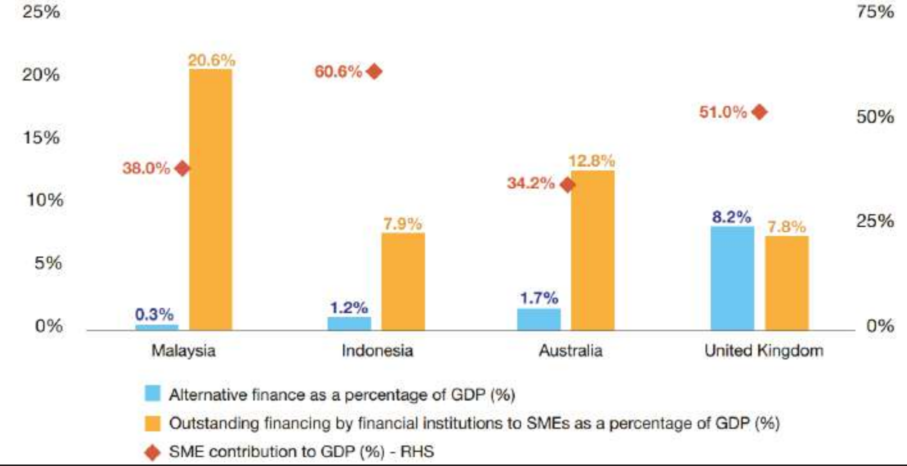
In addition to the above, the SC is working on a framework for market-based instruments to enable transition finance in Malaysia, hence further expanding (Fig 23) funding options for companies at various stages of their sustainability journey. This dovetails with one of the key aims of the aforementioned FSB namely to promote greater access to a more diverse range of funding instruments (i.e. alternative finance solutions, a still-small market per Fig 24) to support growth and promote long-term financial stability. Alternative finance instruments include quasi-equity structures, asset-based finance, expanded applications of trade-based financing solutions, ECF and P2P lending, VC financing, and equity investment via angel investors. The SC is also targeting to release the Sustainable and Responsible Investment (SRI) Taxonomy framework by end-2022, which will act as the guiding principles to identify and classify economic activities that support environmental, social and sustainability objectives.

Fig 23: Broader funding options required for Green/Transition solutions



Source: Capital Market Masterplan 3

Fig 24: Alternative Finance: still relatively modest in Malaysia



**Data is from 2018*

Alternative finance in this chart includes leasing and factoring finance provided by banks and non-banks, VC, PE, P2P lending and ECF

Source: Bank Negara Malaysia, the Securities Commission, Organisation for Economic Co-operation and Development

On the issue of governance, the SC-issued Malaysian Code on Corporate Governance (MCCG; Fig 25) was most recently updated in April 2021, some of the key recommendations re policies and practices being **i)** two-tier voting is now required to appoint independent directors beyond 9 years tenure (MCCG recommends a 9 year cap, while Bursa's listing rules caps at 12 years); **ii)** board of all listed companies comprise at least 30% women directors and the companies' policy on gender diversity now extends to senior management; **iii)** persons linked directly with the executive and active politicians are discouraged from holding board seats; **and iv)** the MCCG 2021 requires companies to address sustainability risks and opportunities to support its long-term strategy and success; a step-up practice requires companies to appoint a designated person within management to provide dedicated focus to manage sustainability strategically, including the integration of sustainability considerations in the operations of the companies.

Fig 25: Key features of the MCCG

Source: Malaysian Code on Corporate Governance

Bursa Malaysia (Bursa): Malaysia's listed stock exchange operator, having launched its Sustainability Roadmap 2021-2023 last year, has now embarked on two major undertakings to dramatically accelerate and broaden Corporate Malaysia's ESG reporting/disclosures and decarbonisation momentum as follows:

Enhanced Sustainability Reporting Requirements (ESRR): to recap, Bursa had been undertaking annual sustainability disclosure reviews (SDR) of sustainability statements and reports of public listed companies (PLCs) on a sampling basis since 2017. In 2021, the Exchange was for the first time able to extend the scope of the SDR to the entire capital market in respect of Main Market (>740) and ACE Market (>130) PLCs. In a significant step-up, in Sept 2022, Bursa announced the Enhanced Sustainability Reporting Requirements (ESRR) in the Main Market Listing Requirements and the ACE Market Listing Requirements, with the aim of elevating the sustainability practices and disclosures of listed issuers to be in line with international best practices while at the same time improving their overall resilience and competitiveness.

Main Market listed issuers will now be required to include the following disclosures in their Sustainability Statements (i.e. the narrative statement by the listed issuers of their material economic, environmental and social risks and opportunities in the annual reports): **(i)** a common set of prescribed sustainability matters and indicators that are deemed material for all listed issuers (Fig 26); **(ii)** climate change-related disclosures that are aligned with Task Force on Climate-related Financial Disclosures ("TCFD") Recommendations; **(iii)** at least three financial years' data for each reported indicator, corresponding targets (if any) as well as a summary of such data and corresponding performance target(s) in a prescribed format; **and (iv)** a statement on whether the Sustainability Statement has been reviewed internally by internal auditors or independently assured.

Fig 26: ESRR: Common Sustainability Matters

No.	Common Sustainability Matters		Common Indicators
1.	Anti-corruption	a)	Percentage of employees who have received training on anti-corruption by employee category
		b)	Percentage of operations assessed for corruption-related risks
		c)	Confirmed incidents of corruption and action taken
2.	Community / Society	a)	Total amount invested in the community where the target beneficiaries are external to the listed issuer
		b)	Total number of beneficiaries of the investment in communities
3.	Diversity	a)	Percentage of employees by gender and age group, for each employee category
		b)	Percentage of directors by gender and age group
4.	Energy management	a)	Total energy consumption
5.	Health and safety	a)	Number of work-related fatalities
		b)	Lost time incident rate
		c)	Number of employees trained on health and safety standards
6.	Labour practices and standards	a)	Total hours of training by employee category
		b)	Percentage of employees that are contractors or temporary staff
		c)	Total number of employee turnover by employee category
		d)	Number of substantiated complaints concerning human rights violations
7.	Supply chain management	a)	Proportion of spending on local suppliers
8.	Data privacy and security	a)	Number of substantiated complaints concerning breaches of customer privacy and losses of customer data
9.	Water	a)	Total volume of water used
10.	Waste management	a)	Total waste generated, and a breakdown of the following: (i) total waste diverted from disposal (ii) total waste directed to disposal
11.	Emissions management	a)	Scope 1 emissions in tonnes of CO_2e
		b)	Scope 2 emissions in tonnes of CO_2e
		c)	Scope 3 emissions in tonnes of CO_2e (at least for the categories of business travel and employee commuting)

Source: Bursa Malaysia

The expectation is that by 2025, all Main Market listed issuers will be reporting TCFD-aligned disclosures where they will be internalising climate change considerations in their business strategies as well as in responding to the needs of their key stakeholders - in this regard, a listed issuer is required to disclose the 4 thematic areas and 11 supporting recommended disclosures under the TCFD Recommendations per Fig 27 below. At the same time, the ESRR is expected to facilitate adoption of international reporting frameworks and standards, such as the GRI (Global Reporting Initiative) and ISSB (International Sustainability Standards Board). The enhanced sustainability reporting requirements for Main Market listed issuers will be implemented in a phased manner, beginning with the disclosure of the common sustainability matters for financial year ending ("FYE") on or after 31 December 2023, and culminating with the TCFD-aligned disclosures for FYE on or after 31 December 2025.

Fig 27: ESRR: TCFD Recommendations and Supporting Recommended Disclosures

Governance	Strategy	Risk Management	Metrics and Targets
Disclose the organization's governance around climate-related risks and opportunities.	Disclose the actual and potential impacts of climate-related risks and opportunities on the organization's businesses, strategy, and financial planning where such information is material.	Disclose how the organization identifies, assesses, and manages climate-related risks.	Disclose the metrics and targets used to assess and manage relevant climate-related risks and opportunities where such information is material.
Recommended Disclosures	**Recommended Disclosures**	**Recommended Disclosures**	**Recommended Disclosures**
a) Describe the board's oversight of climate-related risks and opportunities.	a) Describe the climate-related risks and opportunities the organization has identified over the short, medium, and long term.	a) Describe the organization's processes for identifying and assessing climate-related risks.	a) Disclose the metrics used by the organization to assess climate-related risks and opportunities in line with its strategy and risk management process.
b) Describe management's role in assessing and managing climate-related risks and opportunities.	b) Describe the impact of climate-related risks and opportunities on the organization's businesses, strategy, and financial planning.	b) Describe the organization's processes for managing climate-related risks.	b) Disclose Scope 1, Scope 2, and, if appropriate, Scope 3 greenhouse gas (GHG) emissions, and the related risks.
	c) Describe the resilience of the organization's strategy, taking into consideration different climate-related scenarios, including a 2°C or lower scenario.	c) Describe how processes for identifying, assessing, and managing climate-related risks are integrated into the organization's overall risk management.	c) Describe the targets used by the organization to manage climate-related risks and opportunities and performance against targets.

Source: Bursa Malaysia

Voluntary Carbon Market (VCM): in line with the prevailing thinking that putting a price on carbon is the most effective was for an economy to decarbonize, a key "first step" development to look forward to is Bursa's launching, by end-2022, of a Voluntary Carbon Market (VCM) for trading of carbon credits between green asset owners and companies looking to fulfil either voluntary emissions reduction targets (via utilization of carbon offsets/credits) or to create a "carbon neutral" product for their customers. The VCM will lay the groundwork for the subsequent introduction of other carbon pricing mechanisms currently being studied by the government namely:

- Emissions Trading System (ETS) where the regulator sets a fixed limit for the amount of CO2 (sometimes called a "cap") and then issues the respective amount of emission allowances (or permits) to firms either directly or through auctions; organizations that exceed these limits can purchase excess allowances to fill the gap or pay a fine – one allowance typically grants the right to emit one ton of CO2; and

- Carbon Tax where the regulator sets a fixed limit for the amount of CO2 to be emitted and then taxes every ton of CO2 emitted in excess of the defined limit at a fixed rate – depending on design, carbon credits may be acceptable, up to a limit, in offsetting an organisation's exposure to carbon tax.

As articulated in recent MIBG Sustainability Research report "*Net Zero and the urgency for VCM*", dated Nov 1, ETS is part of the carbon compliance market (see Fig 28 for comparison with voluntary markets). There are 37 ETSs operating or in the process of being operative around the world, such as the European Union (EU) ETS but only 20% of global markets are as yet covered by compliance markets or carbon taxes.

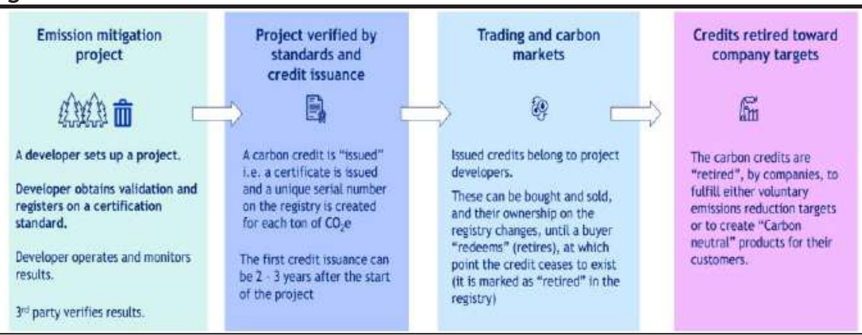
Fig 28: Compliance vs. Voluntary Carbon Markets (VCM)

Key Characteristics	Compliance Markets	Voluntary Markets
Nature of Credits	Credits obtained by regulated entities in order to meet predetermined regulatory targets	Credits voluntarily purchased by companies and individuals
Liquidity	Relatively high liquidity with direct relationship with volatile power, gas and coal price	Low liquidity with limited trading potential in secondary markets where most buyers surrender and use the credit
Market Value Potential	Large market value (USD850b in 2021)	Limited market value currently with strong growth potential (USD2b in 2021, growth potential to reach USD5–180b by 2030)
Market Dynamics and Regulations	Highly regulated, with robust monitoring, reporting and clear quality verification standards	Fragmented and complex market with low to no regulation, different accounting methodologies and a variety of industry created standards

Source: GIC, EDB, McKinsey Report Oct21

Re how the VCM will work, per the graphic in Fig 29 below, a developer of a green project – these can be technology-based (e.g. biogas utilisation, methane capture, green mobility) or nature-based (e.g. forest conservation, mangrove protection, reforestation) - must seek validation / registration with a carbon registry (initially, Bursa will be only recognizing Verra verified carbon standard (VCS) credits, which have c.70% global market share) before those carbon credits can be sold on the Bursa platform. Buyers can then use the Bursa spot market to buy these credits to meet their voluntary emissions reduction targets. Bursa will start with an auction of foreign carbon credits at end-2022 to facilitate price discovery/reference as well as provide a tangible price signal for potential issuers to embark on domestic carbon credit projects. The trading of domestically-generated carbon credits is expected to kick-off in 1Q23.

Fig 29: VCM: How Carbon Credits are Created and Traded



Source: Bursa Malaysia

In parallel, Bursa's FTSE4Good Bursa Malaysia Index – an ESG index which adopts a "best in class" positive screening approach using a framework derived from key global initiatives such as the Global Reporting Initiative (GRI), Sustainability Accounting Standards Board (SASB), Carbon Disclosure Project (CDP) and Taskforce For Climate Related Financial Disclosures (TCFD) – continues to see membership grow i.e. with 24 companies in the index at time of launch in Dec 2014, the latest review in June 2022 added 10 companies and deleted 2, taking the current number of constituents to a new high of 87. Inclusion criteria are consistent with the global ESG model that FTSE has developed – this transparent ESG methodology, available to companies assessed for eligibility to the index, also provides companies with a basis for understanding how their ESG disclosures are assessed and what information investors need to see on ESG performance, based on global disclosure frameworks.

Corporates: more ESG commitments, disclosures but focus is narrow

The aforementioned increasingly cohesive and consequential sustainability initiatives from both the government and regulators are pushing Corporate Malaysia to expedite adoption of "sustainability first" strategies in their own business operations and planning. However, as the below examples and case studies show, while the sustainability-related headlines relating to Corporate Malaysia have definitely improved from a year ago, supported by heightened commitments and disclosures from leading government-linked companies (GLCs) such as PETRONAS and Tenaga (which interplay with the government's own demonstrated urgency), their focus remains predominantly on environmental (E) issues. As underscored by continued negative foreign labour-related newsflow elsewhere (Sime Plantations, ATA), as pressing to address is the "S" issue of foreign labour regulation and usage in sectors like palm oil and manufacturing.

A negative overlay is the fact that in July 2022, the US Department of State downgraded Malaysia to Tier 3 – which is the worst ranking – in its annual Trafficking in Persons (TIP) Report, from the Tier 2 Watch List designation in the previous report, with violations spanning from sex trafficking to debt bondage. Hence, a more cohesive top-down approach is needed to address these labour-related issues - suggested solutions for the authorities and corporates to jointly-execute include making external auditors and regular government inspections mandatory, and removing the middle-man from labour sourcing so that companies are directly responsible for their workforces (i.e. clear accountability and vested interest to ensure all regulations are adhered to).

National Oil & Gas company (NOC) **PETRONAS** appointed Charlotte Wolff-Bye, previously with Norwegian energy company Equinor where she delivered the company's first sustainability strategy that laid the foundations for its' low carbon focus, as its Chief Sustainability Officer (CSO) in June 2021. The CSO is establishing PETRONAS' Net Zero Carbon Emissions (NZCE) roadmap to meeting its aspiration to achieve Net Zero by 2050. In kicking off the journey, PETRONAS has established mid-term targets up until 2024 in relation to its sustainability performance, most importantly a pledge to cap group emissions for its Malaysian operations in absolute terms to 49.5m tonnes of carbon dioxide equivalent i.e. operational expansion is to be decoupled from growth in emissions. Among other notable initiatives in the group's sustainability agenda, green hydrogen (produced using renewable energy) and carbon capture and utilization (CCU) projects are priorities, as is growing its international RE operations (to 3GW by 2024, vs. cumulative 851MW installed capacity in 2021). The group is also ramping up the delivery of carbon neutral LNG, the latter being executed via the purchase of renewables-based and nature-based carbon credits.

PETRONAS has also publicly supported the recommendations of Task Force on Climate related Financial Disclosures (TCFD), with plans to start a reporting regime that would create transparency and provide clarity on how the company performs relative to its net zero aspirations. The group's current disclosure of its sustainability performance data per Greenhouse Gas and Energy-related data in Fig 30 below is already aligned with international reporting standards to allow for comparable disclosure for the benefit of its stakeholders, including **i)** IPIECA / American Petroleum Institute (API) / International Association of Oil & Gas Producers (IOGP) Sustainability reporting guidance for the oil & gas industry; **ii)** Global Reporting Initiative (GRI) Standards; **and iii)** World Economic Forum's Stakeholder Capitalism Metrics.

Fig 30: PETRONAS: Sustainability Performance Data

Greenhouse Gas and Energy

	Unit	2017	2018	2019	2020	2021	WEF	IPIECA	GRI
Greenhouse Gas (GHG) Emissions									
Total GHG Emissions (Scope 1 and 2)	million tCO_2e	56.5	50.1	53.8	48.3	45.2	Climate change: Greenhouse gas emissions	CCE-4	305-1, 2
Malaysia Operations[1]	million tCO_2e	53.6	48.1	51.6	46.3	43.8			
International Operations	million tCO_2e	2.9	2.0	2.2	2.0	1.4			

1. GHG emissions from PETRONAS Refinery and Petrochemical Corporation (PRPC) Utilities and Facilities (UF) is included since 2019, hence GHG emissions from Malaysia Operations has been restated for subsequent years.

	Unit	2017	2018	2019	2020	2021	WEF	IPIECA	GRI
GHG Intensity[1]									
Upstream	tCO_2e/kboe	88.7	74.2	64.6	65.9	47.9	-	CCE-4	305-4
Refineries	tCO_2e/bbl	0.017	0.018	0.018	0.019	0.018			
Petrochemicals[2]	tCO_2e/tonnes	0.77	0.68	0.68	0.66	0.67			

1. All GHG intensity figures cover Malaysia operations only.
2. Figures have been restated in alignment with the new internal emissions management guideline.

	Unit	2017	2018	2019	2020	2021	WEF	IPIECA	GRI
Solar PV Generation Reducing Scope 2 GHG Emissions									
Malaysia									
Energy Generated	MWh	582.5	581.5	687.2	1,789.3	1,878.9	-	CCE-3	302-1 305-5
GHG Emission Reduction	tCO_2e	378.6	383.3	453.0	1,179.5	1,238.6			
International									
Energy Generated	MWh	285.0	274.0	444.4	386.5	442.3	-	CCE-3	302-1 305-5
GHG Emission Reduction	tCO_2e	92.8	84.1	125.8	109.4	114.2			

	Unit	2017	2018	2019	2020	2021	WEF	IPIECA	GRI
PETRONAS' Cumulative Renewable Energy Installed Capacity									
Malaysia	MW	10	10	10	19	29	-	-	-
International	MW	0	0	0	625	822			

Source: PETRONAS

National power company **Tenaga (TNB)** per its' Sustainability Pathway 2050 Targets revealed in 4Q21 (Fig 31), aims to achieve net zero emissions by 2050 via accelerating investments in emerging green technologies, including green hydrogen and carbon capture and utilization (CCU). As articulated in our Tenaga update report "*A balanced transition*", dated Sept 13, Tenaga's initiatives are broadly categorised along 4 pillars – GenCo, New Energy Division (NED), Grid and Electric Vehicles (EV). Of particular interest are the GenCo initiatives which involve **1)** possible early retirement of selected coal plants; **2)** the repowering of these plants with cleaner technology; **and 3)** potential ASEAN expansion (in gas and hydro plants). TNB expects annual capex to step up from MYR9-14b in the 2020s, to MYR10-20b in the 2030s with initial investments into new green technologies, and peaking at MYR15-24b in the 2040s when these new technologies are expected to become mainstream.

Among key targets, TNB has committed to reduce emission intensity by 25%, and cut down coal capacity by 50%, by 2035 – of note, Jimah East Power, a coal-fired 1,000MW plant commissioned in 2019, will be the company's last greenfield coal power plant. Some coal power plants may also be retired early, to be replaced with gas initially, and then gas mixed with hydrogen – in this regard, TNB is aiming to repower its 1,400MW plant in Paka by making it hydrogen-ready by 2029. In sum, by 2035, TNB aims to have a power generation portfolio that is 66% RE, 24% non-coal thermal and 10% coal thermal – this compares to 14% RE, 41% non-coal thermal and 45% coal thermal in 2021. TNB also acquired, via its NED, a 49% stake in an offshore wind farm in the UK in Oct 2021, aiming to build its expertise in this technology and grow its RE portfolio.

Fig 31: Tenaga: Pathway to achieving Net Zero emissions by 2050

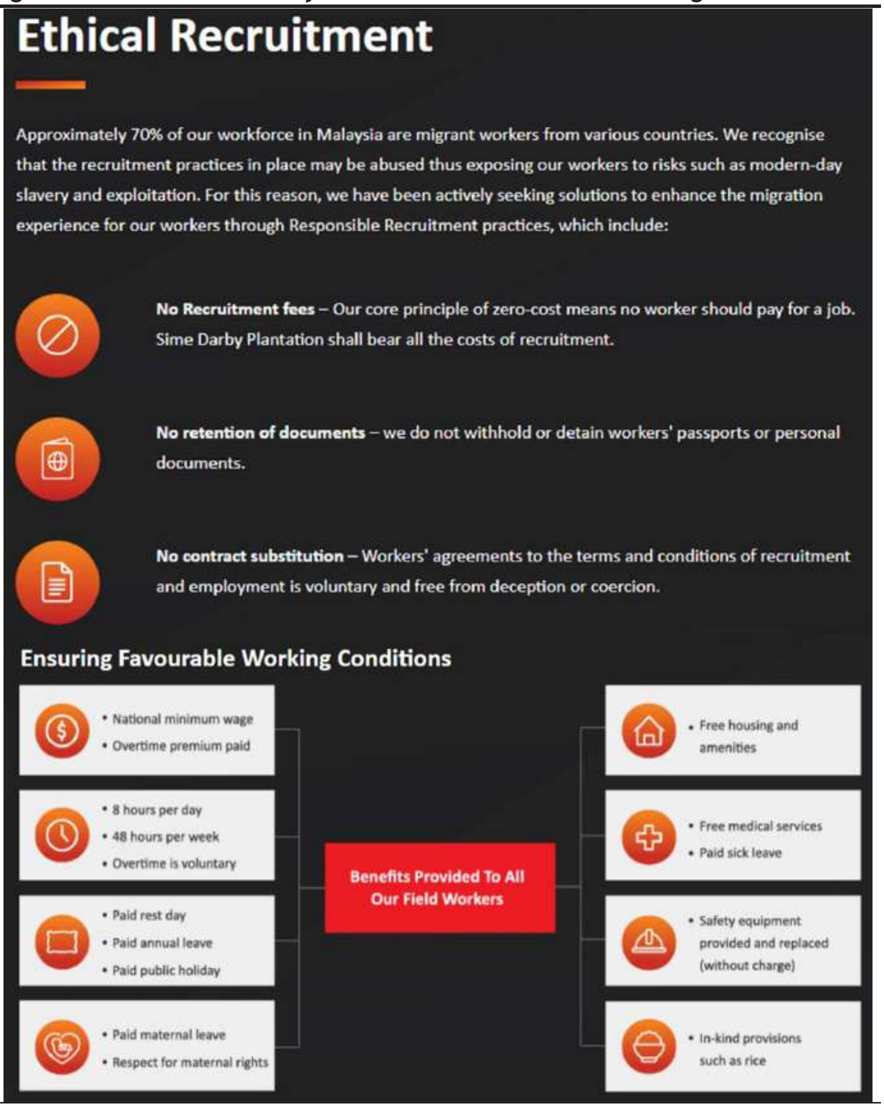
Source: TNB

PETRONAS and Tenaga, quite understandably, are most concerned about their environmental or "E" initiatives and strategies given they both operate in high-emission sectors i.e. oil & gas and power generation, respectively. However, the negative ESG headlines for Malaysian companies over the last two years are much less about emission issues than about treatment of labour, specifically foreign labour per the cases below. These controversies have had serious negative tactical and structural repercussions for both the corporates in question as well as the country. The resulting increased scrutiny by trading partners and NGOs are a detriment to the country's overall competitiveness and attraction as an export base, with the worst-case outcomes including being locked out of markets and supply chains, as well as potential investors (portfolio and FDI alike) screening out Malaysia altogether due to not wanting to risk association of their products and brands with perceived human rights deficits.

In Dec 2020, the US Customs and Border Protection (CBP) issued a Withhold Release Order (WRO) against **Sime Darby Plantation's** (SDPL) palm oil based on 'information that reasonably indicates the presence of all 11 of the ILO's forced labour indicators in SDPL's production process'. The WRO prevents SDPL's palm oil (of MY origin) from entering the US market. In response, SDPL appointed *Impactt* as a third-party assessor to its Expert Stakeholder Human Rights Assessment Commission. *Impactt*, an ethical trade consultant with specific expertise in detecting and remediating forced labour issues, subsequently kicked-off a comprehensive evaluation of SDPL's labour practices. However, due to the pandemic-related lockdowns that saw many site visits postponed and which made it impossible to conduct the required face-to-face interviews with workers at the estates, the *Impactt* assessment was delayed. Further, following some key resignations, SDPL decided, in July 2021, to dissolve the Commission, with oversight function over the evaluation exercise now taken over by SDPL's Sustainability Committee.

Contrary to expectations, the US CBP issued its Finding report at end-Jan 2022, before *Impactt* was able to complete its assessment – based on its own investigation, US CBP determined that there is sufficient information to support a finding that SDPL is using forced labour at its Malaysian plantations. The Finding will now allow CBP to seize (vs. just detain) products imported into the US. Subsequent to the Finding report, SDPL responded swiftly by instituting sweeping changes in its governance and operations. Key highlights per Fig 32 include: **(1)** foreign workers to be reimbursed for costs they had incurred to secure employment with SDPL, estimated to cost MYR82m; **(2)** establish an improved Responsible Recruitment Procedure and implemented new processes to enable better dialogue with workers; **and (3)** agents in breach of SDPL's zero recruitment fee policy will be prevented from working with SDPL again. SDPL was also able to finally deliver its impact report submission to the US CBP in April 2022, and is currently awaiting a response to its related request for the WRO imposed since Dec 2020 to be lifted. Additionally, SDPL's board approved a new ESG Scorecard in 2022 outlining management KPIs that reflect the initiatives SDPL has undertaken to meet the requirements of the ILO and to fully address the Forced Labour Indicators (FLI). This new ESG Scorecard now carries as much weight as the operational scorecard.

Fig 32: Sime Plantations: Key Initiatives on Human / Worker Rights

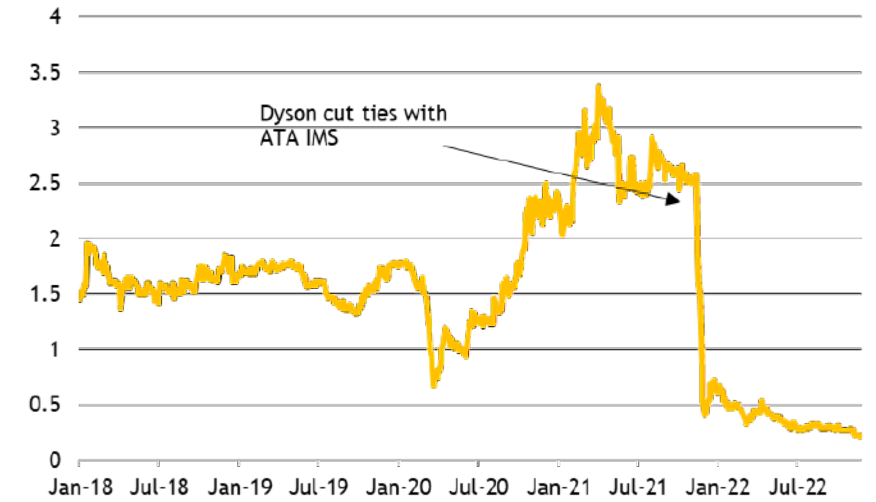


Source: Sime Darby Plantations

On a more positive note, the example of **Top Glove** shows that is it possible to resolve a US CBP ban fairly expediently provided management responds quickly and effectively. To recap, In July 2020, the US CBP banned imports of rubber gloves from two units of Top Glove, citing "reasonable evidence of forced labour in the manufacturing process". While the company subsequently reimbursed its foreign workforce for recruitment fees paid (c.10,000 workers, at a total cost of c.USD40mn), the ban was expanded to all units of Top Glove following US Customs seizing Top Glove's products in late-March 2021. In June 2021, TOPG affirmed that independent international UK consultant *Impactt Ltd* had verified that TOPG had resolved the 11 ILO indicators of forced labour and that the US CBP was at the verification stage on the matter. Subsequently, the US CBP lifted the Withhold Release Order (WRO) on Top Glove's products in Sept 2021.

Nonetheless, quite apart from their direct impact re lost revenues and customer apprehension, the reputational damage from such bans can have a long-lasting impact on business prospects and be extremely difficult to completely reverse. A recent example of this is the travails of Malaysian EMS (electronics manufacturing services) company **ATA IMS** – in Nov 2021, premium home appliance maker Dyson cut ties with the company following an audit of the latters' labour practices and related allegations by a whistleblower. ATA had earlier in the year rejected allegations of unethical recruitment and labour violations after Nepal-based labour rights activist Andy Hall said U.S. authorities had agreed to look into a unit of the company after he said he had received complaints from some of its workers. In May 2021, the US CBP confirmed it was investigating ATA over the allegations. In Dec 2021, following the Dyson news, the Malaysian government charged ATA with four violations of labour law related to accommodation for workers as it investigates the complaints of forced labour. As underscored by Fig 33, ATA's share price plunged on the Dyson news, and continues to trend lower.

Fig 33: ATA IMS: share price chart



Source: Factset, Maybank IBG Research

ASEAN vs. Malaysia: ESG driving outperformance?

As articulated in our recent MIBG Sustainability Research report "*ASEAN - evidence of better ESG driving outperformance*", dated Aug 12, to better understand the impact of ESG integration on stock returns, we undertook a study of the ASEAN-6 markets i.e. Malaysia, Singapore, Indonesia, Philippines, Thailand and Vietnam, with the underlying objectives of the evaluation being:

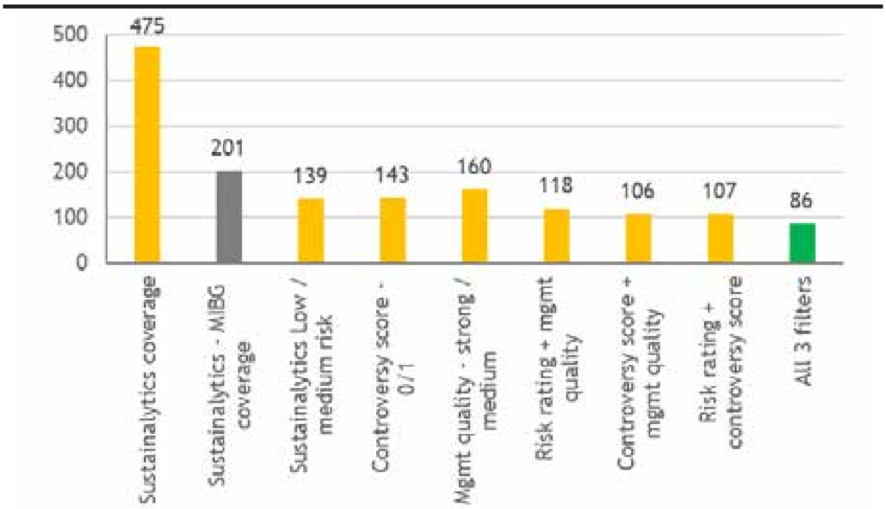
1. to assess the impact of ESG integration on the stock performance of ASEAN companies under MIBG coverage back-tested over a period of 1, 3 and 5 years;
2. to gauge how the returns fared in comparison to the MSCI ASEAN Index;
3. to understand the scope and extent of ESG integration among the ASEAN-6 countries;
4. to ascertain sector-specific outperformance / underperformance; *and*
5. to compare performance across market capitalization (large/mid/small) vs. MSCI ASEAN Index.

For the study, we used the Sustainalytics Risk Ratings database. Sustainalytics is a leading external ESG research and data provider that MIBG has partnered with for ESG services that range from company-focused ESG ratings reports, through to portfolio ESG and carbon analytics. At this juncture, Sustainalytics covers around 475 companies with the ASEAN-6 countries, of which 201 companies are part of the MIBG research coverage universe. To ascertain low/medium ESG risk companies, we used the following three criteria / filters:

1. Sustainalytics ESG risk ratings (Low and Medium risk only);
2. Sustainalytics Controversy score (no mention and score 1 only); and
3. Sustainalytics Management Quality rating (high and average).

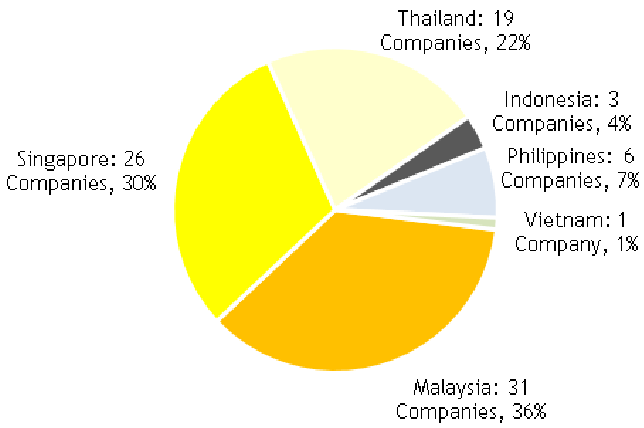
Of the 475 companies covered by Sustainalytics in the ASEAN-6 markets, only 177 companies (37% of the universe) satisfy all three of our aforementioned filters i.e. low/medium ESG risk score, no/minimal controversies and medium/strong management. Juxtaposing these 177 filtered companies against the 201 Sustainalytics-covered companies that are also covered by MIBG, per Fig 34 below, only 86 (43%) of the latter satisfy all three filter requirements i.e. deemed to be low/medium ESG risk companies. Further, of these 86 companies within the MIBG research coverage universe, 88% are from Malaysia, Singapore and Thailand, while just 6 companies are from the Philippines, 3 from Indonesia and 1 from Vietnam (Fig 35).

Fig 34: 37% of Sustainalytics and 43% of MIBG coverage possess the best ESG characteristics



Source: Sustainalytics, Maybank IBG Research

Fig 35: Filters-compliant MIBG coverage companies - by country



Source: Sustainalytics, Maybank IBG Research

Turning to performance, when we compare the returns of the Sustainalytics 177 low/medium ESG risk companies (per filtering of Sustainalytics total ASEAN-6 coverage of 475 companies) against the MIBG 86 low/medium ESG risk companies (per filtering of MIBG's total ASEAN-6 coverage of 201 companies), both baskets of stocks show tangible outperformance vs. the benchmark MSCI ASEAN Index. Per Fig 36 below, the Sustainalytics basket of 177 stocks outperformed the benchmark by 4.3%/4.5%/2.0% over 1, 3 and 5 years on a market cap weighted basis – for the MIBG basket of 86 stocks, outperformance based on similar time periods and market cap weighting methodology was 2.6%/1.0%/0.7%.

Fig 36: Low/medium ESG risk companies outperformed vs. MSCI ASEAN Index benchmark

		MCAP weighted return								
		MSCI			annualised returns			Out/underperformance		
Particulars	No. of companies	5Y Ann. Ret	3Y Ann. Ret	1Y Ret	5Y Ann. Ret	3Y Ann. Ret	1Y Ret	5Y Ann. Ret	3Y Ann. Ret	1Y Ret
Overall										
Sustainalytics ASEAN -6 markets companies	475	3.3%	-0.3%	2.6%	7.9%	8.7%	7.5%	4.6%	9.0%	4.9%
ESG risk score -- low/medium + controversy (no or 1) + mgmt (medium or strong)	177	3.3%	-0.3%	2.6%	7.6%	4.2%	4.6%	4.3%	4.5%	2.0%
MIBG coverage	201	3.3%	-0.3%	2.6%	7.5%	8.8%	8.4%	4.3%	9.1%	5.7%
ESG risk score -- low/medium + controversy (no or 1) + mgmt (medium or strong)	86	3.3%	-0.3%	2.6%	5.9%	0.7%	3.4%	2.6%	1.0%	0.7%

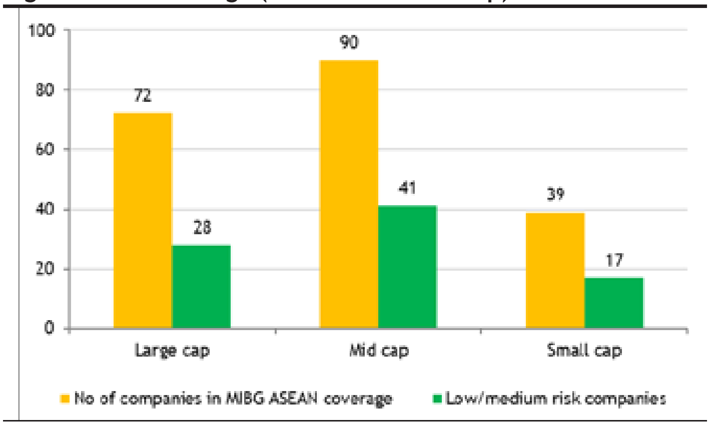
Source: Sustainalytics, Maybank IBG Research (as of 27 Nov)

However, our analysis also uncovered the following potentially discordant (vis-à-vis the prima facie indication, per above, that ESG risk is a key determinant / driver of relative performance) outcomes with regards relative performance:

Even though the derived sub-segments of low/medium ESG risk companies have outperformed the MSCI ASEAN Index, per Fig 3 above, these filtered stock baskets, however, underperformed when compared to the returns from the total (unfiltered) MIBG and Sustainalytics ASEAN coverage companies. We believe the reasons for this include i) lower investor focus on ESG parameters in the ASEAN region at the moment, as underscored by the low percentage of ESG/sustainability/impact-focused funds in the region (ASEAN is only 1.7% of global green, social and sustainability-linked debt vs. global GDP share of 3.6%); **and ii)** companies are not yet fully aware of ESG-related risks and opportunities relating to their business and management structures. Nonetheless, the momentum for low/medium ESG risk investments should increase as corporate ESG practices and disclosures inevitably improve, spurred by a combination of government and regulatory push factors, as well as rising ESG fund flows into ASEAN markets.

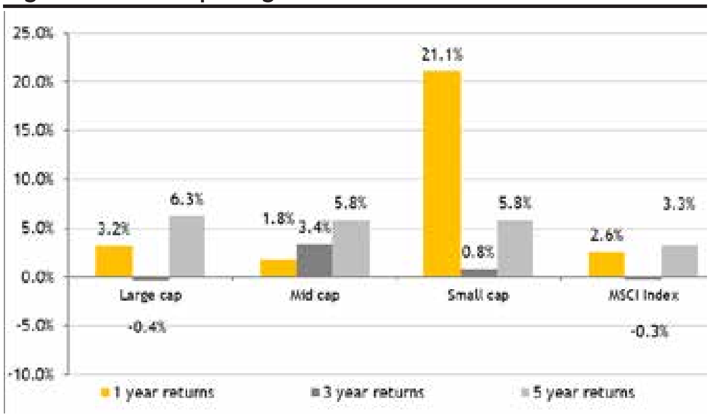
For our study, we segmented MIBG coverage companies into large-caps (>USD5b market capitalization), mid-caps (USD1-5b) and small-caps (<USD1b). Within MIBG's coverage, 72 out of 201 companies are large-caps, 90 are mid-caps and the remaining 39 are small-caps. Of the 86 MIBG coverage companies which qualified as low/medium ESG risk, a dominant 47% are mid-caps, followed by large-caps at 32% and small-caps at 18% (Fig 37). On one hand, the relatively modest share for small-caps is to be expected given that this segment, primarily due to a lack of resources, tends to be relatively deficient on ESG practices and disclosures. On the other hand, their performance has been the best by a wide margin i.e. small-caps have not only outperformed the large cap and mid-cap companies by a wide margin but their outperformance vs. the MSCI ASEAN Index has also been stark at 18.5%, 1.1% and 2.5% over the 1, 3 and 5 year time periods (Fig 38).

Fig 37: MIBG coverage (based on market cap)



Source: Sustainalytics, Maybank IBG Research

Fig 38: Market-cap-weighted returns vs. benchmark



Source: Sustainalytics, Maybank IBG Research (as of 27 Nov)

A key characteristic of companies with low/medium ESG risk is their disclosure levels. Our study suggests that of MIBG's 86 low/medium ESG risk companies:

66% either followed the integrated annual reporting (i.e. annual report and ESG/sustainability report combined) or followed the Global Reporting Initiative (GRI) standard for reporting of ESG parameters;

48% had undertaken or planned to undertake the Task Force on Climate-related Financial Disclosures (TCFD) framework for reporting of climate-related risks and opportunities;

19% had their climate-related targets approved by the science-based target initiative (SBTi);

22% had net zero targets;

14% had carbon neutral targets;

36% have raised funding through Sukuk/green/sustainable bonds/debt; and

60% have women comprising more than 20% of their board of directors.

Fig 39: Higher-rated ESG companies generally follow better reporting standards and net zero pledging

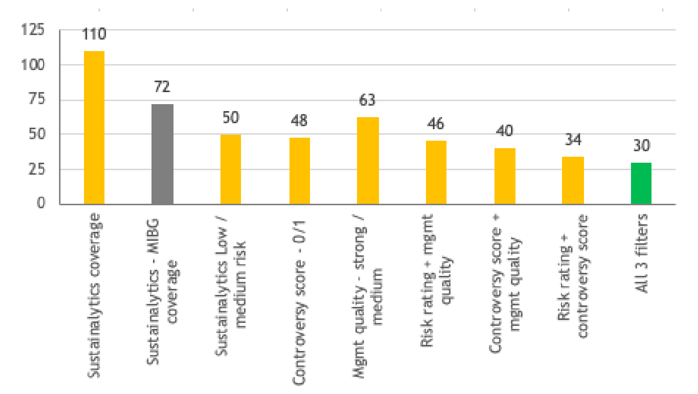
Country	No. of cos.	Int. rep./GRI	Net zero	Carbon neutral	TCFD framework	SBTI framework	Sukuk / Green bonds	Women directors >20% of board
Malaysia	30	23	12	6	14	3	17	25
Singapore	26	22	2	4	17	8	11	15
Thailand	19	7	3	0	7	4	1	5
Indonesia	3	1	0	1	0		1	3
Philippines	6	3	2	1	3	1	1	4
Vietnam	1	1	0	0	0		0	0
Total	86	57	19	12	41	16	31	52
% of total		*66%*	*22%*	*14%*	*48%*	*19%*	*36%*	*60%*

Source: Sustainalytics, Maybank IBG Research

Of the 86 stocks in the MIBG research coverage universe which are compliant with the aforementioned three filters to be able to be considered low/medium ESG risk companies, the single largest block of 30 (35% share) are listed in Malaysia (Fig 40) – of note, plantation companies (which are a large weighting in the KLCI) do not feature as low/medium ESG risk, with key risks including rainforest destruction and poor working conditions, while according to the Roundtable on Sustainable Palm Oil (RSPO), only 19% of global palm oil is RSPO certified.

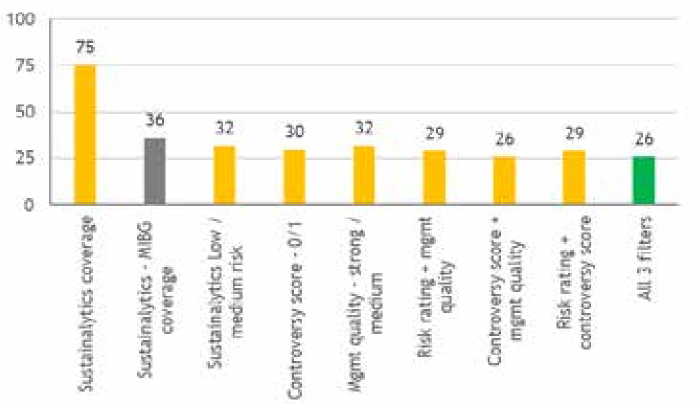
The second largest block of 26 companies (30% share) are listed in Singapore (Fig 41), many of these being REITs and real estate companies focused on green buildings, as well as banking/financial services companies. Overall, their large shares of low/medium ESG risk companies out of the total 86 indicate Malaysia and Singapore remain ahead of the rest of ASEAN in terms of broad ESG themes.

Fig 40: Malaysia – 30 companies out of 72 MIBG coverage satisfy all 3 filters



Source: Sustainalytics, Maybank IBG Research

Fig 41: Singapore – 26 companies out of 36 MIBG coverage satisfy all 3 filters



Source: Sustainalytics, Maybank IBG Research

This leadership is also reflected in Fig 42, where the two countries generally dominate ASEAN-6 in terms of satisfying multiple ESG parameters after adjusting for share of companies that satisfy the 3 filters we are using i.e. 57 out of the total 86 across ASEAN, a 66% share. For the Malaysian corporates, they appear to be progressing well in terms of integrated annual reporting (regulator push has helped), declaring net zero and carbon neutral targets, as well as leveraging green financing options and increasing the number of women on boards – however, they appear to be lagging in terms of adopting the Task Force on Climate-related Financial Disclosures (TCFD) framework for reporting of climate-related risks and opportunities, as well as having their climate-related targets approved/validated by the science-based target initiative (SBTi). The latter seems to be less of an issue for the Singaporean companies, notwithstanding the latter appearing much more circumspect in terms of committing to net zero and carbon neutral targets.

Fig 42: Malaysia / Singapore: better placed vs. other ASEAN-6 markets on multiple ESG parameters

Country	No. of cos.	Int. rep./GRI	Net zero	Carbon neutral	TCFD framework	SBTI framework	Sukuk / Green bonds	Women directors >20% of board
Malaysia	30	24	13	7	14	3	17	26
Singapore	26	22	2	4	17	8	11	15
% of total (overall)		*67%*	*23%*	*15%*	*47%*	*18%*	*36%*	*61%*
% of total (Malaysia)		*75%*	*41%*	*22%*	*44%*	*9%*	*53%*	*81%*
% of total (Singapore)		*85%*	*8%*	*15%*	*65%*	*31%*	*42%*	*58%*

Source: Sustainalytics, Maybank IBG Research

When considering relative performance vs. the benchmark, per Fig 43 below, Malaysia is a positive outlier in that, in contrast to rest of ASEAN as flagged in the previous section, the 30 filtered Malaysian stocks outperformed (8.3%/2.2%/7.8% over 1/3/5 years) both the MSCI Malaysia Index (1.6%/-2.1%/-0.7%) as well as overall MIBG coverage returns (5.8%/1.5%/3.5%). Interestingly, the number of Sustainalytics-covered stocks in Malaysia that satisfy the filters to be considered low/medium ESG risk companies is a larger basket of 41 companies, for which performance has been by far the best i.e. 11.8%/7.1%/8.8% over 1/3/5 years. The 11 companies included in this Sustainalytics basket but not covered by MIBG are BAT (tobacco), F&N (consumer staples), IOI Properties (real estate), Mah Sing (real estate), MBSB (banks), MPI (tech), Matrix (real estate), Pentamaster (tech), Petronas Dagangan (utilities), Press Metal (Industrials) and Unisem (tech) - key outperformers, in our view, would have been the tech stocks and Press Metal.

Fig 43: Malaysia low/medium ESG risk companies outperformed vs. both MSCI as well as broad coverage

		MCAP weighted return								
		MSCI Malaysia			annualised returns			Out/underperformance		
	no of companies	5Y Ann. Ret	3Y Ann. Ret	1Y Ret	5Y Ann. Ret	3Y Ann. Ret	1Y Ret	5Y Ann. Ret	3Y Ann. Ret	1Y Ret
Malaysia										
Total companies - Sustainalytics	110	1.6%	-2.1%	-0.7%	7.6%	3.8%	4.2%	6.0%	5.9%	4.9%
ESG risk score -- low/medium + controversy (no or 1) + mgmt (medium or strong)	41	1.6%	-2.1%	-0.7%	11.8%	7.1%	8.8%	10.2%	9.1%	9.6%
MIBG coverage (overlaps with Sustainalytics)	72	1.6%	-2.1%	-0.7%	5.8%	1.5%	3.5%	4.1%	3.6%	4.2%
ESG risk score -- low/medium	50	1.6%	-2.1%	-0.7%	7.2%	2.1%	3.9%	5.5%	4.2%	4.7%
ESG risk score -- low/medium + controversy (no or 1)	34	1.6%	-2.1%	-0.7%	8.8%	2.4%	7.0%	7.2%	4.5%	7.7%
ESG risk score -- low/medium + controversy (no or 1) + mgmt (medium or strong)	30	1.6%	-2.1%	-0.7%	8.3%	2.2%	7.8%	6.6%	4.3%	8.5%

Source: Sustainalytics, Maybank IBG Research (as of 27 Nov)

The 30 low/medium ESG risk Malaysian stocks that satisfied the 3 filters are listed in Fig 44 below. These companies are from a diverse range of industries, though on a market capitalisation basis, Banks/Financial services dominates (Fig 45); as they do the KLCI as well) with a 40% share via 5 stocks. Other sectors with significant representation in terms of number of companies are consumer discretionary (eclectic mix of an auto manufacturer/distributor, brewer, shopping mall operator and fashion/apparel retailer), real estate (generally with low ESG risk scores and strong management scores) and technology (generally low ESG risk scores, helped by operations which have low environmental impact).

When juxtaposed against the most recent revisions to our recommended Malaysia ESG Portfolio, which was first introduced in our maiden Malaysia ESG Compendium report entitled "*Sustainability: No longer optional*", dated April 8, 2021 via a 16-stock portfolio, there is significant overlap. The latest changes to the portfolio were made in the wake of 1Q22 reporting (see "*Mixed, reopening tailwinds notwithstanding*", dated June 2), when we: **i)** removed **Bursa** (BURSA MK) following the change in its rating to SELL per downgrade report ("*1Q22: In-line*", dated April 28 (we then subsequently raised the rating to HOLD on valuations per update report "*Back to pre-pandemic levels*", dated June 17); and **ii)** removed **V.S. Industry** (VSI MK), not so much due to its rating downgrade to HOLD (see "*Rising concerns from operational disruptions*", dated March 28), but because of the heightened ESG risks associated with its heavy dependence on foreign labour – note peer EMS company ATA IMS saw a severe sell down in in late-4Q21 after British high-tech home appliance maker Dyson Ltd announced it had cut ties with the contract manufacturer following an audit of its labour practices and allegations made by a whistleblower, an incident that has cast a pall over the entire EMS sub-sector.

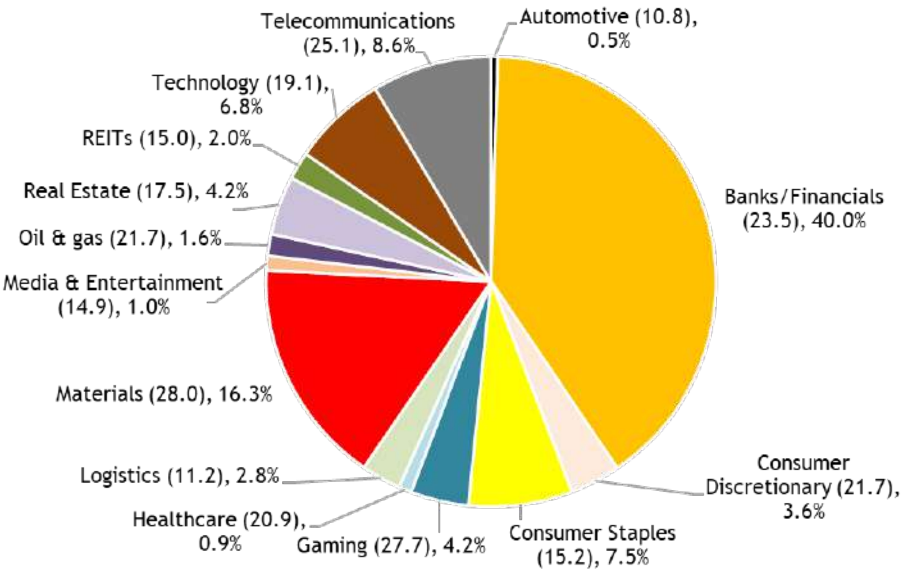
Fig 44: Malaysia – the 30 companies that satisfy the Sustainalytics-based filters

	Name	Sector	Market Capitalisation (USDm)	Overall ESG Risk score	Highest Controversy Score	Overall Management	ESG Risk Category	Overall Management Category	Rating
1	V.S. Industry	Technology	736	9.5	-	50.5	negligible	average	Buy
2	Westports	Logistics	2,625	10.4	Category 1	61.1	low	strong	Hold
3	Bermaz Auto Bhd	Automotive	492	10.8	-	37.5	low	average	Buy
4	Bursa Malaysia	Financials	1,260	13.1	-	54.7	low	strong	Hold
5	Sunway Bhd	Real Estate	1,690	13.6	-	60.1	low	strong	Hold
6	Sime Darby Property	Real Estate	741	14.2	-	59.4	low	strong	Buy
7	Padini Holdings	Consumer Discretionary	482	14.6	-	34.6	low	average	Buy
8	Axis REIT	REITs	654	14.9	-	36.6	low	average	Buy
9	Astro Malaysia	Media & Entertainment	789	14.9	Category 1	37.0	low	average	Hold
10	Sunway REIT	REITs	1,074	15.0	-	37.5	low	average	Hold
11	UEM Sunrise	Real Estate	309	16.0	-	52.2	low	strong	Hold
12	S P Setia	Real Estate	580	17.4	-	48.7	low	average	Hold
13	Hong Leong Bank	Banks	9,983	18.7	-	55.1	low	strong	Buy
14	Greatech	Technology	1,279	19.1	-	43.1	low	average	Buy
15	Nestlé (Malaysia)	Consumer Staples	6,860	19.3	Category 1	68.8	low	strong	Sell
16	AEON Co. (Malaysia)	Consumer Discretionary	428	20.5	-	29.2	medium	average	Buy
17	Yinson Holdings	Oil & gas	1,555	21.3	Category 1	62.6	medium	strong	Buy
18	MyEG Services	Technology	1,464	21.5	-	30.8	medium	average	Buy
19	Heineken Malaysia	Consumer Discretionary	1,672	21.6	-	44.4	medium	average	Buy
20	KPJ Healthcare	Healthcare	942	23.0	-	51.0	medium	average	Buy
21	Petronas Chemicals	Materials	16,125	23.7	-	49.7	medium	average	Hold
22	Digi.com	Telecommunications	6,919	24.1	-	44.7	medium	average	Hold
23	Time Dotcom	Telecommunications	1,998	26.2	-	26.2	medium	average	Hold
24	Sunway Construction	Real Estate	454	26.3	Category 1	50.1	medium	strong	Hold
25	Public Bank	Banks	19,519	26.8	Category 1	41.0	medium	average	Hold
26	Alliance Bank	Financials	1,336	27.3	Category 1	38.0	medium	average	Buy
27	Genting Malaysia	Gaming	3,593	27.7	Category 1	34.8	medium	average	Buy
28	Inari Amertron	Technology	2,309	28.1	-	39.6	medium	average	Buy
29	UMW Holdings	Consumer Discretionary	871	28.2	-	37.9	medium	average	Buy
30	Frontken Corp.	Technology	1,086	29.8	-	29.2	medium	average	Buy

** stocks in **red highlight** are constituents of our recommended ESG Portfolio*

Source: Sustainalytics, Maybank IBG Research. Bloomberg (as of 24 Nov)

Fig 45: Malaysia – low/medium ESG risk companies by sector



Source: Sustainalytics, Maybank IBG Research

Despite removing these two stocks, 8 of the remaining 13 stocks in the previous ESG Portfolio are also in the list of 30 filtered low/medium ESG risk Malaysian stocks – these are a highly-diversified basket comprising Bermaz Auto, Inari, Yinson, Hong Leong Bank, Petronas Chemicals, Westports, Sunway and Digi.com. The 5 stocks in the portfolio that did not satisfy the filtering process are ViTrox (weak management score), Telekom (controversy score of 2), Gamuda (high ESG Risk score), MISC (controversy score of 2) and IOI Corp. (controversy score of 3), while we additionally note RHB Bank very recently saw its controversy score raised to 2 due to financing relationships with the coal industry.

ESG portfolio is balanced, backtests positively

As articulated in our 123-page Malaysia ESG Compendium entitled "*Sustainability: No longer optional*", dated April 8, 2021, the MKE equity research team across ASEAN (30+ analysts covering over 200+ stocks) has been publishing one-page ESG tear sheets for companies under coverage since mid-2020. As at end-2021, all of Maybank Investment Bank (MIB)'s ASEAN equity research coverage, spanning across all sectors, now comes with a qualitative-centric ESG tear sheet insert (ESG 1.0; Fig 46) that outlines key E, S and G considerations for the company, and how these feed into the company's core business model in terms of recognition of material ESG issues and strategies on addressing related risks and opportunities.

Since 2Q21, these qualitative tear sheets have included a quantitative scoring element for a more complete consideration of the company's ESG issues and dynamics, hence providing both a backward looking/current quantitative view and a forward-looking, MKE analyst-driven qualitative outlook. The quantitative ESG inputs are sourced from Sustainalytics which, as mentioned, is a leading external ESG research and data provider that the MKE group has partnered with for ESG services that range from company-focused ESG ratings reports, through to portfolio ESG and carbon analytics. Sustainalytics also acts as the data source for other service providers such as Morningstar (ESG fund ratings and indices) and FTSE Russell (ESG ratings and customized indices, including FTSE4Good indices).

Most recently, in parallel with the publication of the maiden Regional Utilities report ("*Geopolitics accelerating transition to renewables*", dated April 24) by the newly-established MIBG Sustainability Research Team based in India, we have launched our own proprietary ESG scoring model per the addition of a quantitative-focused tear sheet (ESG 2.0, example per Fig 47 below), with the target being to roll out ESG 2.0 to all ASEAN big-caps coverage (>USD1b market cap) by end-2022. Re methodology, we evaluate the ESG ratings based on quantitative, qualitative and ESG targets. We assign a score for each of these three parameters. The overall rating is based on the weighted average of the scores: quantitative (50%), qualitative (25%) and ESG target (25%).

As also articulated in Appendix 1, for the quantitative, qualitative and ESG target, the sub-parameters are assigned a score - '0' for data not available, '+1' for improving trajectory, positive change, 'Yes', better than peers or a positive number if historical is not available and '-1' for declining trajectory, negative change, 'No', lower than peers or a negative number. The total of the scores of all the sub-parameters is divided by the total number of sub-parameters is the score of each of the three parameters. The sub-parameters may be different for different industries depending on the key areas to monitor for each industry. A company should achieve a minimum score of 50 for an average ESG rating.

Fig 46: PChem Tear Sheet: Qualitative (Original ESG 1.0)

Petronas Chemicals

ESG@MAYBANK IBG

anand.pathmakanthan@maybank-ib.com

Risk Rating & Score[1]	28.0 (Medium)
Score Momentum[2]	+1.1
Last Updated	07 Dec 2021
Controversy Score[3] (Updated: 30 Nov 2021)	0 - No reported incidents

Business Model & Industry Issues

- As an integrated chemicals producer, PCHEM's biggest ESG challenge lies in the negative sentiment surrounding single-use plastics. However, we note that its single-use plastic capacity is only <5% of its total capacity and PCHEM is actively expanding its bio-friendly product portfolio. Meanwhile, much of the world's recyclable plastics end up in landfills/oceans due to low recycling rates. Hence, via its New Plastic Economy (NPE) initiatives, PCHEM hopes to raise awareness amongst the local communities whilst simultaneously investing in infrastructure to enable recycling initiatives in the future.
- PCHEM primarily uses natural gas as its fuel, which is the cleaner option. Its key 2024 targets include: (i) capping GHG emissions at 6.98 million tonnes (2021: 7.0 million tonnes) and (ii) increasing its waste recycling (3R) rate to 82% (2021: 75%).
- We are positive on the sector's long-term growth as we believe the demand for plastics will remain robust given that there is no real alternative.
- PCHEM also scores above-average in our proprietary scoring methodology (see Pg. 3) with an overall score of 69/100.

Material E issues

- Energy intensity was 15.76 GJ/T in 2021 (2020: 15.73 GJ/T), representing a 11% reduction against the baseline in 2014. It had achieved its 10% reduction target in 2020.
- GHG emission intensity increased to 0.67 tonne CO_2e/tonne (+2% YoY). Its target is to cap its Scope 1/2 emissions at 6.92 million tonnes by 2024 (FY21: 7.0 million tonnes).
- In 2021, its freshwater withdrawal intensity was up to 3.69m^3/tonne (+5% YoY), while its wastewater discharge was lower at 171.4 tonnes (-4% YoY) due to lower discharge from plant turnarounds and ongoing improvements. PCHEM is currently in the midst of setting water reduction targets.
- PCHEM's hazardous waste recycling (3R) rate was 75% in 2021 (2020: 85%) - It has a formal target of increasing and maintaining the 3R rate to 82% by 2024.
- Its SO_x emissions were markedly lower in 2021, with a YoY reduction of 21%. Overall emissions intensity (inc. NO_x) was however up 10% YoY in 2021 from higher flaring activities.
- PCHEM aims to recover plastic waste that is the equivalent of 100% of its domestic polymer sales volume by 2030.

Material S issues

- Recorded a third straight year of zero fatalities across its scope of operations in 2021.
- Lost time injury frequency (LTIF) halved YoY to 0.07 incidents per million man-hours in 2021 (2020: 0.14).
- Women made up only c.17% of its workforce in 2021 as its manufacturing ops workers are mostly male. Encouragingly, 1/4 hires were female in FY21 while female representation at Senior Mgmt/Mgmt Committee level was 25%/36% respectively.
- Its CSR initiatives' (e.g. *ecoCare, Be Green, Back To School*) reach was 295,000 people in 2021 (2020: 70,000). It has set itself a new target to reach 1 million people by 2024.

Key G metrics and issues

- As of 31 Dec 2021, the Board had a total of 8 Directors, out of which, 4 (or 50%) were Independent Non-Executive Directors (INEDs).
- The Board has 2 female Directors, representing 25% of the Board's composition (lower than the minimum of 30%). PCHEM is considering hiring another female Director within a year in order to achieve the minimum target of 30%.
- PCHEM's major shareholder is PETRONAS, which holds a 64.4% equity stake. PETRONAS has 4 Directors on the Board (or 50% of the Board's composition).
- Datuk Md Arif Mahmood was the Non-Independent Non-Executive Chairman and also represents PETRONAS. His remuneration package was MYR326,500 in 2021. However, as a PETRONAS appointee, the remuneration was paid to PETRONAS instead.
- The Top 5 Senior Management (MD/CEO, CFO, Chief Manufacturing Officer, Chief Commercial Officer and Head of Strategic Planning and Ventures) are seconded from PETRONAS. Their remuneration packages are benchmarked against the industry but PCHEM does not disclose the remuneration amounts as it is subject to the Personal Data Protection Act (PDPA) 2010.
- KPMG PLT is the external auditor and has served PCHEM for more than 10 years.
- PCHEM has numerous related party transactions (RPTs) with PETRONAS as the businesses are inter-related. PETRONAS explores and produces gas while PCHEM uses the gas as feedstock and fuel to produce a wide range of chemical products. In FY21, the largest RPT was for the purchase of processed gas and natural gas from PETRONAS, which amounted to MYR3.8b (or 36% of its COGS in FY21). Transactions with Government related entities are also considered RPTs as the ultimate holding company of PCHEM and PETRONAS is the Government of Malaysia. Examples of these RPTs include the purchase of electricity from Tenaga Nasional (TNB MK, HOLD, TP: MYR9.30) and sale of petro-chemical products to Pertubuhan Peladang Kebangsaan.

[1]Risk Rating & Score - derived by Sustainalytics and assesses the company's exposure to unmanaged ESG risks. Scores range between 0 - 50 in order of increasing severity with low/high scores & ratings representing negligible/significant risk to the company's enterprise value, respectively, from ESG-driven financial impacts. [2]Score Momentum - indicates changes to the company's score since the last update - a negative integer indicates a company's improving risk score; a positive integer indicates a deterioration. [3]Controversy Score - reported periodically by Sustainalytics in the event of material ESG-related incident(s), with the impact severity scores of these events ranging from Category 0-5 (0 - no reports; 1 - negligible risks; ...; 5 - poses serious risks & indicative of potential structural deficiencies at the company).

Source: Company, Maybank IBG Research (Tear Sheet)

Fig 47: PChem Tear Sheet: Quantitative (Expanded ESG 2.0)

Petronas Chemicals

ESG@MAYBANK IBG

	Quantitative parameters (Score: 39)					
	Particulars	Unit	2019	2020	2021	TPIA IJ (2021)
E	Scope 1 GHG emissions	m tCO2e	5.73	5.77	5.67	1.96
	Scope 2 GHG emissions	m tCO2e	1.29	1.33	1.33	0.47
	Total	**m tCO2e**	**7.02**	**7.10**	**7.00**	**2.43**
	Scope 3 GHG emissions	m tCO2e	N/A	3.06	3.27	N/A
	Total	**m tCO2e**	**7.02**	**10.16**	**10.27**	**N/A**
	GHG intensity (Scope 1 and 2)	tCO2e/t	0.68	0.66	0.67	0.63
	Energy intensity	GJ/ton	15.37	15.73	15.76	11.43
	Share of renewable energy use in operations	%	N/A	N/A	N/A	N/A
	Wastewater discharge (chemical O_2 demand)	tonnes	153.7	177.8	171.4	22.7
	Hazardous waste 3R rate	%	70%	85%	75%	98%
	Air emissions intensity	ton/kT	2.83	2.21	2.42	N/A
	NPE (New Plastic Economy) investments	MYR m	8	3	3	N/A
	Cases of environmental non-compliance	number	0	0	0	N/A
S	% of women in workforce	%	17.4%	17.2%	17.3%	15.2%
	% of women in management roles	%	30.8%	30.2%	21.9%	21.3%
	Lost time injury frequency (LTIF) rate	number	0.08	0.14	0.07	0.11
	Lives impacted by CSR outreach ('000)	number	20	70	295	N/A
G	MD/CEO salary as % of reported net profit	%	N/A	0.10%	0.02%	N/A
	Board salary as % of reported net profit	%	0.06%	0.21%	0.04%	N/A
	Independent directors on the Board	%	50%	50%	50%	33%
	Female directors on the Board	%	25%	25%	25%	0%

Qualitative Paramaters (Score: 100)

a) is there an ESG policy in place and whether there is a standalone ESG committee or is it part of a risk committee?
Yes - as of FY21, it has an established framework and a working sustainability committee that reports quarterly to the Board.
b) is the senior management salary linked to fulfilling ESG targets?
Yes - in FY21, sustainability KPIs were introduced in top management performance appraisals.
c) Does the company follow the task force of climate related disclosures (TCFD) framework for ESG reporting?
Yes
e) Does the company have a mechanism to capture Scope 3 emissions - which parameters are captured?
Yes - purchased goods and services (Cat. I) and use of sold products (Cat. II); calculated using Simplified IPCC Tier 1 method.
f) What are the 2-3 key carbon mitigation/water/waste management strategies adopted by the company?
It has a framework to reduce 20%/80% of emissions by 2030/40 based on the 2020 baseline, in line with its 2050 NCZE aspiration. It conducted a feasibility study with a private firm to turn non-recyclable plastic waste into crude naphtha and also invested MYR40m in a plant that produces Bio-MEG from palm biomass. To reduce air emissions, it utilises UHPM fuel cell applications (24% lower CO_2 emissions) while for water mgmt, it deployed mobile reverse osmosis tech to reduce raw water consumption by 16% and has invested MYR3m in an automated water quality management system powered by renewable energy.
g) Does carbon offset form part of the net zero/carbon neutrality target of the company?
Yes

Target (Score: 100)		
Particulars	Target	Achieved
Reduce Scope 1 & 2 GHG emissions (tonnes) by 2024	6.98	7.00
Reduce energy intensity (GJ/tonne) vs 2014 baseline	10%	11%
Recover plastic waste from total MY polymer production volume by 2030	100%	N/A
Increase hazardous waste 3R (reduce, reuse, recycle) rate by 2024	82%	75%
Increase number of people reached by CSR outreach initiatives ('000)	1,000	295
Reduce 2030/40 carbon emissions vis-a-vis 2020 baseline	20%/80%	N/A
Net-zero carbon emissions by 2050	Net 0	N/A

Impact

NA

Overall score: 69

As per our ESG matrix, Petronas Chemicals Group (PCHEM MK) has an overall score of 69.

ESG score	Weights	Scores	Final Score
Quantitative	50%	39	19
Qualitative	25%	100	25
Target	25%	100	25
Total			69

As per our ESG assessment, PCHEM has an established framework, internal policies, and tangible mid/long-term targets but needs to make headway in improving its quantitative "E" metrics YoY. PCHEM's overall ESG score is 69, which makes its ESG rating above average in our view (average ESG rating - 50; refer to Appendix I for our ESG Assessment Scoring).

Source: Company, Maybank IBG Research (Tear Sheet)

In sum, we combined the granular insights from the Tear Sheets with data and risk scoring from Sustainalytics to generate our maiden 16-stock ESG Portfolio in April 2021. In guiding us on the constituent make-up of our ESG portfolio, we have taken a combination of factors and parameters into consideration as follows:

Analyst stock rating: as ESG factors lend support and de-risk existing business models that are fundamental drivers of long-term shareholder returns, we include both BUY and HOLD-rated companies with attractive business models and long-term growth outlooks, but exclude SELL-rated stocks, the latter notably including some companies with attractive ESG credentials / scores such as filter-satisfying Nestle and UEM Sunrise;

Sustainalytics risk score and category: for many of the constituents we have chosen, there is clear positive correlation or cross-check between the analysts' fundamental stock rating and the risk score from the external ESG research provider – examples are across a diverse set of sectors and include BUY-rated names like Bermaz and Inari, as well as HOLD-rated Westports and Sunway, all of which have strong Sustainalytics risk scores /low risk ratings;

Momentum assessment: while Sustainalytics momentum indicators are useful for flagging near-term changes in risk score, and where they are coming from (i.e. exposure or management issues), the analysts may, from their frequent dialogues with company management and deep understanding of the underlying business, have greater insights into management's commitment and plans to address and improve the company's ESG factors. This bottom-up, forward-looking understanding underscores portfolio picks that are not currently in the filtered 30 stocks list but show strong signs of joining this list over the medium-term i.e.

where current relatively high ESG risk scores have scope to improve significantly on positively pivoting business models and improving ESG factor measurements and disclosures.

We have chosen 5 such "momentum" stocks to include in our refreshed ESG portfolio notwithstanding these names not satisfying all the 3 filters, namely telco Telekom (controversy score of 2 relating to Bribery and Corruption events over the past decade, the last being in 2019), banking group RHB Bank (controversy score of 2 relating to being on the 2022 Global Coal Exit List over financial relationships with the coal industry), construction company Gamuda (high overall ESG Risk Score / Rating), shipper MISC (controversy score of 2 relating to Emissions, Effluents and Waste issues from environmentally-damaging shipbreaking activities, the last such report being in Feb 2022) and tech play ViTrox (weak management score related to poor disclosures, and lack of policies and programmes to manage risks related to its material ESG issues).

FTSE4Good membership: considering whether portfolio constituent stocks are in Bursa's FTSE4Good Bursa Malaysia Index is a useful cross-check - recall this index adopts best-in-class positive screening and inclusion criteria are consistent with the global ESG model that FTSE has developed. However, we note that the 30-stock KLCI substantially overlaps with the 87-stock FTSE4Good index (as at end-June 2022; 26 of the KLCI constituent stocks are also in the FTSE4Good) – hence, there is a very high positive correlation between the two indices – therefore, for investors looking to capture differentiated performance vs. the KLCI benchmark, a more refined ESG portfolio appears to be required; and

Risk scores and ESG Tear Sheet completion: we have required constituent stocks to have both a Sustainalytics risk score as well as completed ESG Tear Sheets (1.0 and 2.0). We note that this results at the moment in exclusion of smaller-cap stocks with prima facie promising ESG underpinnings such as Allianz and Aurelius Technologies.

Our most recent iteration of the 15-stock ESG Portfolio as contained in our 4Q21 results wrap report dated March 2 was updated in our recently-published 2H2022 Malaysia Equities Market Outlook report "*Storm Warning*", dated July 4. Per the latter, and as already articulated earlier in this report, we had removed **Bursa** (BURSA MK) and **V.S.** Industry (VSI MK). For our refreshed, filter-centric recommended ESG Portfolio per Fig 48 below, we flag the following changes to constituents as compared to the most recent "*Storm Warning*" portfolio update:

Inclusion of Axis REIT: this logistics and warehouses-focused REIT is our top pick in the REITs sector, with stable earnings/yield profile and good pipeline of new assets; it not only has one of the lowest ESG Risk Scores among the 110 Malaysian corporates covered by Sustainalytics' but it also has the lowest risk rating among its global peers of similar market capitalization. Management rating is average, with no controversies.

Inclusion of RHB Bank: the fourth largest bank in Malaysia by asset size has been positively surprising the market with a combination of strong earnings delivery, strengthening balance sheet and rising dividend payouts. Management rating is average while controversy score is 2, relating to carbon impact of products (coal financing) and business ethics (one NPO report on processing transactions involving illicit funds and one fine by the regulator of an employee for unauthorized trades).

Re-inclusion of Bursa Malaysia: the national stock exchange not only has one of the lowest ESG Risk Scores but its' management is rated as (a relatively rare) strong, underpinned by very strong disclosures (signalling a high degree of accountability) and clear initiatives to manage risks related to material ESG issues. Of note, Bursa launched its Sustainability Roadmap 2021-23 in 2021, and has publicly committed to achieving carbon neutrality by 2022, and net zero by 2050. No controversies.

Exclusion of IOI Corp: this plantation company did not pass our controversy score filter, where it is scored a 3 by Sustainalytics due to **i)** operations incidents relating to land use and biodiversity – IOI was temporarily suspended from selling Certified Sustainable Palm Oil (CSPO) by the RSPO in 2016 and has been implicated in multiple environmental concerns; **and ii)** employee incidents relating to human rights, where Finnwatch, a Finnish civic organization focused on global social responsibility, has flagged poor working / forced labour conditions for plantation workers, to which IOI has responded positively with action plans and process improvements.

Per Fig 48, while the bulk of our ESG Portfolio (10 out of the 15 stocks) are constituted of stocks which satisfy the three quantitative/qualitative Sustainalytics-derived filters as previously articulated, we have also included 5 "momentum" stocks (MISC, RHB, Telekom, Gamuda, ViTrox) which, while they do not immediately satisfy all three filters, are, per our on-the-ground research assessment, showing positive momentum re closing the implied disclosure and operational gaps to improve their ESG metrics / scoring over the medium-term.

Fig 48: ESG portfolio: recommended constituents

Stock	BBG Code	Mkt Cap. (MYRm)	Rec.	Price (MYR)	TP (MYR)	PER (x) FY22E	PER (x) FY23E	ROE (%) FY22E	Yield (%) FY22E	Risk Rating*	Risk Score*	Management Rating*	Controversy Score*	MIBG ESG Score	In FBM4G Index?^
Filtered Stocks															
Petronas Chemicals	PCHEM MK	72,480	Hold	9.06	9.10	11.5	11.6	16.5%	4.3%	23.7	Medium	Average	0	69	Yes
Hong Leong Bank	HLBK MK	44,872	Buy	20.70	23.60	12.7	11.8	10.9%	2.7%	18.7	Low	Strong	0	76	Yes
DiGi	DIGI MK	31,100	Hold	4.00	3.50	32.0	26.0	nm	3.1%	24.1	Medium	Average	0	67	Yes
Westports	WPRTS MK	11,799	Hold	3.46	3.20	18.6	15.2	19.3%	4.0%	10.4	Low	Strong	1	62	Yes
Inari	INRI MK	10,377	Buy	2.78	3.62	25.0	24.5	15.6%	3.8%	28.1	Medium	Average	0	70	Yes
Sunway	SWB MK	7,529	Hold	1.54	1.63	16.7	14.8	4.4%	1.8%	13.6	Low	Strong	0	74	Yes
Yinson	YNS MK	6,635	Buy	2.29	4.05	17.3	12.1	16.7%	0.9%	21.3	Medium	Strong	1	78	Yes
Bursa	BURSA MK	5,665	Hold	7.00	6.77	25.7	22.8	27.6%	3.6%	13.1	Low	Strong	0	73	Yes
Axis REIT	AXRB MK	2,937	Buy	1.79	2.12	17.2	16.0	6.7%	5.2%	14.9	Low	Average	0	59	No
Bermaz Auto	BAUTO MK	2,209	Buy	1.90	2.90	13.2	9.5	24.5%	4.9%	10.8	Low	Average	0	65	Yes
Momentum Stocks															
MISC	MISC MK	32,496	Hold	7.28	6.95	19.8	18.2	4.8%	4.5%	18.1	Low	Strong	2	71	Yes
RHB Bank	RHBBANK MK	24,083	Buy	5.67	7.10	9.6	8.0	8.6%	5.2%	25.8	Medium	Average	2	65	Yes
Telekom	T MK	21,321	Buy	5.58	7.80	15.4	14.1	16.7%	3.2%	26.1	Medium	Average	2	67	Yes
Gamuda	GAM MK	10,105	Buy	3.90	4.40	11.4	13.9	8.1%	3.2%	35.3	High	Average	1	68	No
ViTrox	VITRO MK	6,849	Buy	7.25	8.80	32.8	28.9	24.1%	0.8%	24.6	Medium	Weak	0	55	Yes

* *derived from leading external ESG research & data provider Sustainalytics*

^ *FTSE4Good Bursa Malaysia (F4GBM) Index (88 constituents as of Jun 2022)*

Source: Maybank IBG Research, Sustainalytics, FactSet, Bloomberg (as of 24 Nov)

Turning to performance, in Fig 49 below, we backtest the performance of the above 15-stock ESG Portfolio against Sustainalytics and MIBG Malaysia overall and filtered coverage. When considering relative performance vs. the benchmark MSCI Malaysia, both overall and filtered coverage generated significantly superior returns. The 41 filtered Sustainalytics stocks continued to generate the best overall performance i.e. 11.8%/7.1%/8.8% over 1/3/5 years. This was then followed by our backtested 15-stock ESG Portfolio per Fig 15, which generated returns of 9.7%/3.7%/13.6% over 1/3/5 years, handily beating both overall market coverage baskets as well as the 30 filtered Malaysian stocks covered by MIBG.

Fig 49: Backtesting our 15-stock ESG Portfolio performance vs. both MSCI and broad coverage

		MCAP weighted return								
		MSCI Malaysia			annualised returns			Out/underperformance		
	no of companies	5Y Ann. Ret	3Y Ann. Ret	1Y Ret	5Y Ann. Ret	3Y Ann. Ret	1Y Ret	5Y Ann. Ret	3Y Ann. Ret	1Y Ret
Malaysia										
Total companies - Sustainalytics	110	1.6%	-2.1%	-0.7%	7.6%	3.8%	4.2%	6.0%	5.9%	4.9%
ESG risk score -- low/medium + controversy (no or 1) + mgmt (medium or strong)	41	1.6%	-2.1%	-0.7%	11.8%	7.1%	8.8%	10.2%	9.1%	9.6%
MIBG coverage (overlaps with Sustainalytics)	72	1.6%	-2.1%	-0.7%	5.8%	1.5%	3.5%	4.1%	3.6%	4.2%
ESG risk score -- low/medium + controversy (no or 1) + mgmt (medium or strong)	30	1.6%	-2.1%	-0.7%	8.3%	2.2%	7.8%	6.6%	4.3%	8.5%
MIBG 15-stock ESG Portfolio	**15**	**1.6%**	**-2.1%**	**-0.7%**	**9.7%**	**3.7%**	**13.6%**	**8.0%**	**5.8%**	**14.4%**

Source: Sustainalytics, Maybank IBG Research

In conclusion, the ESG Tear Sheets 1.0 and 2.0 for the 15 ESG Portfolio constituent stocks, as well as all MIBG Malaysia Research coverage with market capitalisation above USD1bn (summarised in Fig 50 below), can be referenced from pages.45-147, providing details on ESG qualitative fundamentals and quantitative Sustainalytics and MIBG proprietary scoring, and how these relate to risks and opportunities that impact the core business model.

Fig 50: MIBG Malaysia Research Coverage: stocks with >USD1b market cap.

Stock	BBG Code	Mkt Cap. MYRm	Rec.	Price MYR	TP MYR	PER (x) FY22E	PER (x) FY23E	ROE (%) FY22E	Yield (%) FY22E	MIBG ESG Score (total)	*Quant Score*	*QualScore*	*Target Score*	Sust. Risk Score*	In FBM4G Index? ^
Yinson Holdings	YNS MK	6,635	Buy	2.29	4.05	17.3	12.1	16.7%	0.9%	78	56	100	100	21.3	Yes
Hong Leong Bank	HLBK MK	44,872	Buy	20.70	23.60	12.7	11.8	10.9%	2.7%	76	69	67	100	18.7	Yes
Sunway	SWB MK	7,529	Hold	1.54	1.63	16.7	14.8	4.4%	1.8%	74	47	100	100	13.6	Yes
Bursa Malaysia	BURSA MK	5,665	Hold	7.00	6.77	25.7	22.8	27.6%	3.6%	73	80	100	33	13.1	Yes
Sunway REIT	SREIT MK	4,829	Hold	1.41	1.46	14.9	14.5	6.7%	6.0%	71	50	83	100	15.0	Yes
MISC Bhd	MISC MK	32,496	Hold	7.28	6.95	19.8	18.2	4.8%	4.5%	71	43	100	100	18.1	Yes
Inari Amertron	INRI MK	10,377	Buy	2.78	3.62	25.0	24.5	15.6%	3.8%	70	47	86	100	28.1	Yes
IOI Corporation	IOI MK	24,832	Hold	4.00	4.21	13.8	17.4	15.8%	3.6%	69	39	100	100	25.0	Yes
Petronas Chemicals	PCHEM MK	72,480	Hold	9.06	9.10	11.5	11.6	16.5%	4.3%	69	39	100	100	23.7	Yes
Gamuda	GAM MK	10,105	Buy	3.90	4.40	11.4	13.9	8.1%	3.2%	68	53	100	67	35.3	No
Axiata Group	AXIATA MK	29,183	Buy	3.18	4.50	22.9	18.3	7.0%	3.7%	68	62	83	67	27.9	Yes
CIMB Group	CIMB MK	62,604	Buy	5.87	6.20	10.8	8.8	9.0%	4.4%	67	50	67	100	19.5	Yes
DiGi.com	DIGI MK	31,100	Hold	4.00	3.50	32.0	26.0	nm	3.1%	67	43	83	100	24.1	Yes
Telekom Malaysia	T MK	21,321	Buy	5.58	7.80	15.4	14.1	16.7%	3.2%	67	50	67	100	26.1	Yes
My EG Services	MYEG MK	6,545	Buy	0.88	1.30	20.9	18.9	18.0%	1.4%	67	67	33	100	21.5	Yes
Hong Leong FG	HLFG MK	21,943	Hold	19.16	21.30	8.6	8.8	10.4%	2.5%	66	73	17	100	27.4	Yes
RHB Bank	RHBBANK MK	24,083	Buy	5.67	7.10	9.6	8.0	8.6%	5.2%	65	80	0	100	25.8	Yes
IJM Corp	IJM MK	5,621	Buy	1.60	2.14	23.0	18.4	0.4%	12.6%	63	44	83	80	33.3	No
AMMB Holdings	AMM MK	13,644	Buy	4.12	4.95	9.7	8.3	8.0%	1.3%	63	30	8	25	27.5	Yes
Public Bank	PBK MK	87,736	Hold	4.52	5.00	15.1	13.0	11.7%	3.6%	63	60	33	100	26.8	Yes
Tenaga Nasional	TNB MK	51,260	Hold	8.91	8.70	10.6	9.9	8.1%	4.2%	63	25	100	100	38.1	Yes
Westports Holdings	WPRTS MK	11,799	Hold	3.46	3.20	18.6	15.2	19.3%	4.0%	62	30	88	100	10.4	Yes
Malaysia Airports	MAHB MK	10,187	Buy	6.14	7.16	nm	20.7	nm	0.0%	61	38	67	100	20.2	Yes
Hartalega	HART MK	6,425	Sell	1.88	1.43	5.1	61.9	63.2%	11.7%	61	47	50	100	17.1	Yes
KLCCP Stapled Group	KLCCSS MK	12,222	Hold	6.77	6.72	17.8	16.2	5.1%	4.7%	61	47	50	100	nm	No
Dialog Group	DLG MK	12,865	Buy	2.28	4.90	23.7	21.3	10.1%	1.6%	56	27	71	100	26.4	Yes
Petronas Gas	PTG MK	33,599	Hold	16.98	17.00	19.6	18.2	12.8%	4.2%	55	19	83	100	31.4	Yes
ViTrox Corp	VITRO MK	6,849	Buy	7.25	8.80	32.8	28.9	24.1%	0.8%	55	67	86	0	24.6	Yes
Nestle (Malaysia)	NESZ MK	30,837	Sell	131.50	120.30	41.7	39.0	nm	2.4%	55	26	67	100	19.3	No
Heineken Malaysia	HEIM MK	7,516	Buy	24.88	29.60	19.0	18.4	84.0%	5.3%	54	50	33	83	21.6	No
Alliance Bank	ABMB MK	6,007	Buy	3.88	4.50	10.2	9.1	9.0%	4.9%	52	21	67	100	27.3	Yes
Sime Darby Plantation	SDPL MK	30,014	Hold	4.34	4.38	13.2	17.4	15.7%	5.1%	52	35	83	50	31.7	Yes
Kuala Lumpur Kepong	KLK MK	22,749	Buy	21.10	23.90	10.1	15.0	15.2%	4.8%	52	28	50	100	38.5	Yes
MR D.I.Y. Group (M)	MRDIY MK	18,858	Buy	2.00	2.50	39.4	31.9	42.6%	1.7%	52	29	67	83	31.4	Yes
Carlsberg Malaysia	CAB MK	7,014	Buy	22.94	28.90	20.2	19.0	96.0%	4.9%	52	21	67	100	18.2	Yes
Genting Malaysia	GENM MK	15,409	Buy	2.72	3.27	37.9	12.1	3.0%	3.3%	51	36	33	100	27.7	Yes
Top Glove	TOPG MK	7,887	Sell	0.99	0.52	28.0	45.1	4.2%	1.5%	47	11	67	100	22.8	No
Genting Bhd	GENT MK	17,251	Buy	4.48	5.35	50.8	9.5	1.1%	3.3%	46	15	67	86	27.0	No
QL Resources	QLG MK	13,628	Sell	5.60	4.25	56.2	46.4	8.8%	0.7%	45	63	33	20	41.1	No
Bank Islam Malaysia	BIMB MK	5,496	Hold	2.55	2.70	11.6	10.0	7.0%	3.8%	43	36	0	100	nm	No
YTL Power	YTLP MK	5,509	Hold	0.68	0.75	nm	16.0	8.8%	6.6%	42	9	50	100	nm	No
TIME dotCom	TDC MK	8,981	Hold	4.89	5.05	22.1	20.6	12.8%	4.5%	38	67	17	0	26.2	No
Genting Plantations	GENP MK	5,625	Hold	6.27	6.40	11.0	15.7	9.6%	5.5%	35	6	67	60	42.6	Yes
Maxis Bhd	MAXIS MK	32,182	Hold	4.11	3.70	26.4	22.8	19.1%	4.9%	31	46	33	0	28.2	Yes
IGB REIT	IGBREIT MK	5,703	Hold	1.59	1.60	16.8	15.4	8.8%	5.5%	31	20	33	50	18.3	No

** derived from leading external ESG research & data provider Sustainalytics*

^ FTSE4Good Bursa Malaysia (F4GBM) Index (88 constituents as of Jun 2022)

Source: Sustainalytics, Maybank IBG Research. Bloomberg (as at 24 Nov)

BANKING & NON-BANK FINANCIALS

Alliance Bank Bhd

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Risk Rating & Score[1]	27.3 (Medium)
Score Momentum[2]	-1.8
Last Updated	23 Feb 2022
Controversy Score[3] (Updated: 02 Feb 2021)	1 - Human rights (employee incidents), business ethics incidents

Business Model & Industry Issues

- That ABMB is principally a retail bank with limited corporate lending exposure reduces its environment and corporate governance issues, in our view. Being the smallest domestic bank in Malaysia in terms of asset size, however, ABMB's ability to remain competitive in a fairly mature market is likely to be tested over time, more so with the advent of digital banks.
- The banking sector is one of the transmission mechanisms for government stimulus programs under COVID-19 relief schemes, with an ongoing loan moratorium for the unemployed and reduced instalment payments for individuals that have suffered pay cuts. The PEMULIH programme ended in Dec 2021 but affected borrowers could still transition to the URUS programme or the bank's own internal Payment Relief Assistance Plans (PRAP). These repayment assistance programmes elevate social priorities over shareholders returns in the near term.
- **ABMB scores above-average in our proprietary scoring methodology (see next page) with an overall score of 52/100.**

Material E issues

- The bank's credit policy prohibits lending to illegal business activities that cause environmental harm; however, there is currently a lack of disclosures relating to data or growth targets for sustainable or green loans/financing.
- To reduce its carbon footprint at the workplace, it has focused on 1) energy management e.g. replacing low-efficiency unit air conditioners at its branches, progressively fitting LED lights, 2) using environmentally friendly materials in all its office renovations, and reducing the use of paper, where the print volume declined by 13% at head office in FY21.
- There is strong digital adoption, with account transactions done digitally/remotely rising to 69% of total in Mar 2021, from 54% in Mar 2020.

Material S issues

- In FY22, 61% of ABMB's workforce were women. The representation was lower on the Board of Directors at 22% currently and the Board strives for a diversity target of 30%.
- In the Bank Negara Malaysia Customer Satisfaction Survey of 20 banks, ABMB scored 87% for customer satisfaction, ranking first with a net promoter score of 53 versus the industry's 41.
- SMEs are the backbone of the Malaysian economy, accounting for >38% of the country's GDP. ABMB is dedicated towards supporting the SMEs and has launched various non-financial solutions/initiatives such as BizSmart Solution, #SupportLokal, Halal in One Programme etc.
- The attrition rate was 16.8% in FY22 versus 10.7% in FY21.

Key G metrics and issues

- ABMB has not had any material accounting & tax, lobbying & public policy, sanctions related, data privacy or security controversies in the past 5 years.
- The CEO's remuneration was MYR10.1m in FY22, representing 1.8% of the group's net profit.
- As at 31 Mar 2022, the Board of Directors had nine members, all of whom were Non-Executive, seven of whom were Independent Directors.
- IT expenses amounted to MYR71.1m in FY22, representing 8.6% of total operating expenses.
- ABMB is audited by PricewaterhouseCoopers, the world's second largest network of professional firms.
- ABMB major shareholder is Vertical Theme with a 29.06% stake. Vertical Theme, meanwhile, is 49% held by Singapore's Temasek Holdings Via Duxton Investments Pte Ltd, while the remaining 51% stake was bought out in Apr 2016 by three individuals i.e. Ong Beng Seng, Ong Tiong Sin and Seow Lun Hoo. It is unclear as to whether the interests of the shareholders are aligned, or whether the individual shareholders share long-term interests in the bank's development.

[1]***Risk Rating & Score*** - derived by Sustainalytics and assesses the company's exposure to unmanaged ESG risks. Scores range between 0 - 50 in order of increasing severity with low/high scores & ratings representing negligible/significant risk to the company's enterprise value, respectively, from ESG-driven financial impacts. [2]***Score Momentum*** - indicates changes to the company's score since the last update - a negative integer indicates a company's improving risk score; a positive integer indicates a deterioration. [3]***Controversy Score*** - reported periodically by Sustainalytics in the event of material ESG-related incident(s), with the impact severity scores of these events ranging from Category 0-5 (0 - no reports; 1 - negligible risks; ...; 5 - poses serious risks & indicative of potential structural deficiencies at the company).

ESG@MAYBANK IBG

	Quantitative Parameters (Score: 21)					
	Particulars	Unit	2020	2021	2022	* HLBK MK
E	Scope 1 emissions	tonnes CO2e	-	-	-	134
	Scope 2 emissions	tonnes CO2e	-	-	-	23,541
	Total	**tonnes CO2e**	**-**	**-**	**-**	**23,675**
	Scope 3 emissions	tonnes CO2e	-	-	-	1,294
	Total	**tonnes CO2e**	**-**	**-**	**-**	**24,969**
	GHG intensity (Scope 1 and 2)	kg CO2e/emp	-	-	-	3,200
	Exposure to coal, mining & plantation	% of loan book	-	-	-	10.0%
	Electricity consumption	MWh	-	-	-10% YoY	41,633
	Water consumption	m3	-	-	-	75,549
	Petrol consumption	litres	-	-	-	54,008
	Solid waste disposal	tonnes	-	-13% YoY	-7% YoY	24,881
S	% of women in workforce	%	61.0%	60.8%	60.7%	62.6%
	% of women in management roles	%	-	55.5%	55.6%	55.7%
	Attrition rate	%	8.0%	10.7%	16.8%	10.7%
G	MD/CEO salary as % of reported net profit	%	2.24%	2.48%	1.76%	0.51%
	Board salary as % of reported net profit	%	0.73%	0.90%	0.60%	0.05%
	Independent directors on the Board	%	78%	78%	78%	63%
	Profits distributed to shareholders	% of net profit	21.9%	25.0%	50.0%	35.8%
	Female directors on the Board	%	11%	22%	22%	38%

Qualitative Parameters (Score: 67)

a) Is there an ESG policy in place and whether there is a standalone ESG Committee or is it part of Risk committee?

Yes, there is a Group Sustainability Committee that comprises Independent Directors of ABMB and Alliance Islamic Bank.

b) Does the performance evaluation of the board and senior mgt include a review of the performance of the board and senior management in addressing the company's material sustainability risks and opportunities?

Yes. From FY22, the balanced scorecard of Senior Management includes ESG-related KPIs on financing, investment, policy, carbon footprint and helping customers make the transition to ESG compliance.

c) Does the company follow TCFD framework for ESG reporting? Is it signatory to responsible banking initiative or other such initiatives?

Committed to aligning and progressively adopting TCFD starting 2022.

d) Does the company capture Scope 3 emissions from financing activities?

No mention.

e) Does the bank have a firm deadline for exiting the financing of the coal sector?

The company has no outstanding loans to the coal sector.

f) Does the bank have no deforestation, no peat, no exploitation (NDPE) policies in place?

Have prohibited lending to coal-fired power plants, coal mines, unconventional O&G, projects that can cause severe environmental damage, arms trading entertainment sectors, financing of hostile takeovers.

Target (Score: 100)

Particulars	Target	Achieved
Targets MYR4b in new sustainable banking business in FY23 from MYR2.0b in FY22, and MYR10b in FY25	MYR4b	MYR3.3b
To reduce customers under C5 category to <60% in FY23 from <65% in FY22 and <20% by FY25. Ie to help customers adopt more sustainable lifestyles and business practices	<60%	<65%
To announce GHG emissions reduction plan and target in FY23. Have pledged to be Carbon Net Zero by 2050.	NA	NA

Impact

NA

*** Peer Comparison**

We have benchmarked ABMB's ESG metrics against that of its closest listed peer with publicly available comparable metrics - Hong Leong Bank (HLBK MK; Buy; TP: MYR23.60). The peer's ESG standing has been assessed separately.

ESG score	Weights	Scores	Final Score
Quantitative	50%	21	11
Qualitative	25%	67	17
Target	25%	100	25
Total			**52**

ABMB's ESG score at this stage is based on available information in FY22 and there is a lack of disclosure, especially around environmental issues. Nevertheless, the bank plans to introduce a more comprehensive ESG plan in FY23 which should aid in improving its ratings. Score of **52** is currently **above average** on our ESG rating (average ESG rating = 50; refer to Appendix I for our ESG Assessment Scoring).

AMMB Holdings Bhd

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Risk Rating & Score[1]	27.5 (Medium)
Score Momentum[2]	-2.1
Last Updated	07 Oct 2022
Controversy Score[3] (Updated: 06 Oct 2022)	1 - Product/services (environmental impact), business ethics incidents

Business Model & Industry Issues

- AMMB had, in previous years, been in the press much for its links to 1MDB. Positively though, heavy investments into its risk management processes have contributed to much tightening of processes and there has been an almost complete overhaul of top management at the group. Moreover, its hefty Global Settlement with the Ministry of Finance of MYR2.83b end-Feb 2021 should signal an end to this debacle.
- The banking sector is one of the transmission mechanisms for government stimulus programs under COVID-19 relief schemes, with an ongoing loan moratorium for the unemployed and reduced instalment payments for individuals that have suffered pay cuts. The PEMULIH programme ended in Dec 2021 but affected borrowers could still transition to the URUS programme or the bank's own internal Payment Relief Assistance Plans (PRAP). These repayment assistance programmes elevate social priorities over shareholders returns in the near term.
- Operationally, AMMB displays no exceptional risks not typical of a medium-sized bank for ESG.
- **AMMB also scores above-average in our proprietary scoring methodology (see next page) with an overall score of 63/100.**

Material E issues

- AMMB had disbursed MYR3.7b in New Green financing, as well as MYR11b with low ESG-Risk Grade by FY22.
- FY22 saw an 11% reduction in total carbon emissions against its FY19 baseline – 26% reduction in Scope 1 emissions and 11% reduction in Scope 2 emissions. It is working towards a 24% reduction in total carbon emissions by FY23. Paper consumption dropped 31%.
- As of FY22, AMMB ceased to provide new or additional loans/financing to coal-fired power plants and businesses where coal or coal-related activities contribute at least 20% of the business' total revenue or cost of production.

Material S issues

- Female directors make up 33% of Board composition. In FY22, 63% of its workforce comprised women, with 48% of women in management roles.
- In terms of remuneration by gender, the average monthly salary in FY22 of a male employee was about 20%25% higher than that of a female employee at AmBank and AmInvestment Bank respectively. A factor that has to be taken into consideration, though, is that the statistic is skewed by a higher proportion of males in top management, in our view.
- 91% of total procurement was channelled to local businesses, in FY22.

Key G metrics and issues

- AMMB's Board of Directors comprises 9 members – 7 Independent Non-Executive Directors and 2 Non-Independent Non-Executive Directors.
- The CEO's remuneration was MYR6.7m in FY22, representing 0.5% of the group's pretax profit. The CEO does not sit on the Board of Directors.
- In 2015, AMMB was fined MYR53.7m by BNM for various breaches of regulations and also had to set aside MYR25m per year for four years, for investment in systems, infrastructure and training. According to press reports, this was due to its failure to report suspicious transactions pertaining to Malaysia's ex-Prime Minister Datuk Seri Najib Razak's accounts back then, intrinsically linking the bank to 1MDB. Since then, the bank has done much to enhance its processes and internal systems and there has since been a comprehensive revamp of top management, including the appointment of a new CEO and CFO in Nov 2015 and June 2017 respectively.
- The group discloses the remuneration of each individual Director in its annual report.
- Computerization expenses amounted to MYR192m in FY22, representing 9% of total operating expenses.
- AMMB is audited by Ernst & Young, one of the Big 4 global accounting firms. PwC has been their auditors over the past 10 years, at the very least.

[1]***Risk Rating & Score*** - derived by Sustainalytics and assesses the company's exposure to unmanaged ESG risks. Scores range between 0 - 50 in order of increasing severity with low/high scores & ratings representing negligible/significant risk to the company's enterprise value, respectively, from ESG-driven financial impacts. [2]***Score Momentum*** - indicates changes to the company's score since the last update - a negative integer indicates a company's improving risk score; a positive integer indicates a deterioration. [3]***Controversy Score*** - reported periodically by Sustainalytics in the event of material ESG-related incident(s), with the impact severity scores of these events ranging from Category 0-5 (0 - no reports; 1 - negligible risks; ...; 5 - poses serious risks & indicative of potential structural deficiencies at the company).

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	Quantitative Parameters (Score: 60)					
	Particulars	**Unit**	**2020**	**2021**	**2022**	*** HLBK MK**
E	Scope 1 emissions	tonnes CO2e	102	58	41	134
	Scope 2 emissions	tonnes CO2e	15,810	14,120	12,614	23,541
	Total	**tonnes CO2e**	**15,912**	**14,178**	**12,655**	**23,675**
	Scope 3 emissions	tonnes CO2e	350	26	34	1,294
	Total	**tonnes CO2e**	**16,262**	**14,204**	**12,689**	**24,969**
	GHG intensity (Scope 1 and 2)	kg CO2e/emp	na	1,534	1,501	3,200
	Exposure to coal, mining & plantation	% of loan book	na	na	na	10.0%
	Electricity consumption	MWh	28,374	25,396	22,943	41,633
	Water consumption	m3	na	na	na	75,549
	Petrol consumption	litres	44,773	25,460	18,077	54,008
	Paper consumption	(m sheets)	55.00	44.00	30.00	na
S	% of women in workforce	%	62.0%	62.0%	63.0%	62.6%
	% of women in management roles	%	43.0%	45.0%	48.0%	55.7%
	Attrition rate	%	na	10.0%	14.7%	10.7%
G	MD/CEO salary as % of recurring net profit	%	0.31%	0.66%	0.53%	0.51%
	Board salary as % of recurring net profit	%	0.37%	0.49%	0.42%	0.05%
	Independent directors on the Board	%	63%	56%	78%	63%
	Profits distributed to shareholders	% of net profit	29.9%	0.0%	10.0%	35.8%
	Female directors on the Board	%	25%	22%	33%	38%

Qualitative Parameters (Score: 33)

a) is there an ESG policy in place and whether there is a standalone ESG Committee or is it part of Risk committee?

Yes, there is a standalone Group Sustainability Council chaired by the Group CEO, while the CEO of AmBank Islamic is the Group Sustainability Champion and Alternate Chairman.

b) Does the performance evaluation of the board and senior mgt include a review of the performance of the board and senior management in addressing the company's material sustainability risks and opportunities?

Yes. Since FY21, the Group has embedded sustainability-related KPIs into the scorecards of all C-Suites, including the Group CEO.

c) Does the company follow TCFD framework for ESG reporting? Is it signatory to responsible banking initiative or other such initiatives?

Currently establishing climate change parameters according to the Task Force on Climate-Related Financial Disclosures (TCFD), which includes conducting a climate change scenario analysis of its business.

d) Does the company capture or plan to capture Scope 3 emissions including from financing activities?

No mention.

e) Does the bank have a firm deadline for exiting the financing of the coal sector?

The bank no longer provides new or additional loans and financing to businesses where coal or coal-related activities constitute at least 20% of the business' total revenue or cost of production, but no firm exit deadline mentioned.

Target (Score: 100)

Particulars	**Target**	**Achieved**
To reduce overall carbon emissions by 24% by FY23 vs FY19 baseline	-24%	-11%
To no longer provide new or additional loans/financing to customers in coal-fired power plants, or coal or coal-related activities contribute 20.0% or more of the counterparty's total revenue, or if coal or coal-related products contribute 20.0% or more of the counterparty's raw materials for its production.	NA	NA
To assign ESG risk grades and climate change classification to our portfolios, and ensure 70.0% of loans/financing portfolios have a low ESG risk grades by 2030.	NA	NA

Impact

NA

*** Peer Comparison**

We have benchmarked AMMB's ESG metrics against that of its closest listed peer with publicly available comparable metrics - Hong Leong Bank (HLBK MK; Buy; TP: MYR23.60). The peer's ESG standing has been assessed separately.

ESG score	Weights	Scores	Final Score
Quantitative	50%	60	30
Qualitative	25%	33	8
Target	25%	100	25
Total			**63**

As per our ESG assessment, AMMB has established internal ESG policies, but needs further disclosures and commitments relating to its quantitative "E" metrics. AMMB's overall ESG score is **63**, which makes its ESG rating above average in our view (average ESG rating = 50; refer to Appendix I for our ESG Assessment Scoring).

CIMB Group Holdings Bhd

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Risk Rating & Score[1]	19.5 (Low)
Score Momentum[2]	-0.2
Last Updated	14 Oct 2022
Controversy Score[3] (Updated: 13 Oct 2022)	2 - Product/services, business ethics incidents

Business Model & Industry Issues

- With business operations in all ASEAN countries (37% of total loans were from outside Malaysia as at end-Dec 2021), the challenge for CIMB would be in ensuring ESG compliance across the various jurisdictions, especially in Indonesia and Thailand, where the group has a 91.5% stake in CIMB Niaga and 94.8% stake in CIMB Thai.
- The banking sector is one of the transmission mechanisms for government stimulus programs under COVID-19 relief schemes, with an ongoing loan moratorium for the unemployed and reduced instalment payments for individuals that have suffered pay cuts. The PEMULIH programme ended in Dec 2021 but affected borrowers could still transition to the URUS programme or the bank's own internal Payment Relief Assistance Plans (PRAP). These repayment assistance programmes elevate social priorities over shareholders returns in the near term.
- CIMB Group displays no exceptional ESG risks that are not typical of a large bank but will have to improve on perceived weaknesses in data security.
- **CIMB also scores above-average in our proprietary scoring methodology (see next page) with an overall score of 67/100.**

Material E issues

- CIMB is a signatory to the Collective Commitment to Climate Action, which strives to limit global warming to well below 2 degrees Celsius.
- Targets set: a) net zero GHG Scope 1 and 2 emissions by 2030 and Net Zero GHG by 2050, b) no Deforestation, no Peat and no Exploitation policy to be rolled out from mid-2022 in Malaysia and phased in by stages across the Group, c) to mobilise MYR30b in sustainable finance by 2024.
- CIMB was the first banking group in Southeast Asia to formalize a progressive coal sector guide that targets to phase out coal from its portfolio by 2040. Coal exposure was <1% of the group's financing assets end-2021.
- In 2021, it a) structured the world's first Malaysian Ringgit denominated sustainability-linked derivative transaction and Asia's largest ESG linked derivative trade, b) mobilised MYR25.9b of sustainable finance, c) launched the Government of Indonesia's USD3b global sukuk offering with a green sukuk tranche and the Government of Malaysia's USD 1.3b sukuk wakala, which included a USD800m sustainability tranche.

Material S issues

- CIMB is committed to invest MYR150m over 5 years and a 100,000 hour target of annual employee volunteerism by 2024.
- CIMB has 30% female Board representation, 43% in leadership (Group CEO's reports and their reports) and 47% in management roles of revenue generating functions.
- Has extended over MYR7.6b in financing to serve underserved communities and MYR253b of financial assistance to 1.7m customers since 2020.

Key G metrics and issues

- In 2021, CIMB's BOD comprised 10 Directors – 7 Independent Directors (IDs), 2 Non-IDs and the Group CEO, who is an Executive Director.
- CIMB Group is audited by PricewaterhouseCoopers, the world's second largest network of professional firms.
- Established the Board-level Group Sustainability and Governance Committee in 2021, and embedded sustainability KPIs into the performance measures of the Group's top 100 executives.
- In recent years, CIMB had been in the press over alleged data security issues. In 2017, the group announced that several magnetic tapes containing back-up customer data were lost in transit during routine operations. In 2018, there were alleged security issues over its online banking portal, CIMBClicks. In 2019, CIMB had to assure its customers that its core banking system was intact, amid allegations of a ransomware attack.
- In Feb 2022, CIMB announced it had to set aside a provision of MYR280m against a processing error that was made by one of its third-party service providers. The processing error led to transfers made to customers being accidentally processed twice, resulting in customers receiving duplicate credits into their accounts. The bank was sued by 12 parties as a result of their accounts being frozen, but CIMB filed a counter-suit against these people along with an order issued for all 12 people to repay a total of MYR1.39m. Further to this, 650 CIMB Bank account holders had, in April 2022, filed a MYR650m class-action suit against the bank for negligence.

[1]***Risk Rating & Score*** - derived by Sustainalytics and assesses the company's exposure to unmanaged ESG risks. Scores range between 0 - 50 in order of increasing severity with low/high scores & ratings representing negligible/significant risk to the company's enterprise value, respectively, from ESG-driven financial impacts. [2]***Score Momentum*** - indicates changes to the company's score since the last update - a negative integer indicates a company's improving risk score; a positive integer indicates a deterioration. [3]***Controversy Score*** - reported periodically by Sustainalytics in the event of material ESG-related incident(s), with the impact severity scores of these events ranging from Category 0-5 (0 - no reports; 1 - negligible risks; ...; 5 - poses serious risks & indicative of potential structural deficiencies at the company).

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	Quantitative Parameters (Score: 50)					
	Particulars	**Unit**	**2019**	**2020**	**2021**	*** HLBK MK**
E	Scope 1 GHG emissions	m tCO2e	4,998	2,196	5,024	134
	Scope 2 GHG emissions	m tCO2e	89,836	81,755	66,941	23,541
	Total	**m tCO2e**	**94,834**	**83,951**	**71,965**	**23,675**
	Scope 3 GHG emissions	m tCO2e	161	165	189	1,294
	Total	**m tCO2e**	**94,995**	**84,116**	**72,154**	**24,969**
	GHG intensity (Scope 1 and 2)	kgCO2e/t	2,696	2,461	2,169	3,200
	Exposure to coal, mining & plantation	% of loan book			7.2%	10.0%
	Electricity consumption	MWh	129,484	117,376	107,089	41,633
	Water consumption	m3	474,531	480,139	550,709	75,549
	Petrol consumption	litres	16,975	7,614	18,598	54,008
	Solid waste recycled	tonnes	389,979	140,108	126,165	24,881
S	% of women in workforce	%	56.5%	56.5%	56.7%	62.6%
	% of women in management roles	%	45.7%	46.6%	48.0%	55.7%
	Attrition rate	%	19.0%	13.9%	14.3%	10.7%
	Policy, data & framework breaches	number	0	0	1	0
G	MD/CEO salary as % of reported net profit	%	0.18%	0.21%	0.11%	0.51%
	Board salary as % of reported net profit	%	0.30%	0.63%	0.23%	0.05%
	Independent directors on the Board	%	75%	78%	70%	63%
	Profits distributed to shareholders	% of net profit	49.7%	33.4%	50.1%	35.8%
	Female directors on the Board	%	11%	33%	30%	38%

Qualitative Parameters (Score: 67)

a) is there an ESG policy in place and whether there is a standalone ESG Committee or is it part of Risk committee?

Yes, there is an ESG policy in place and a standalone Sustainability & Governance Committee.

b) Does the performance evaluation of the board and senior mgt include a review of the performance of the board and senior management in addressing the company's material sustainability risks and opportunities?

Yes. Sustainability KPIs are carried by the Group CEO, top management, country heads and relevant senior management in key business units and enablers that contribute significantly towards the advancement of sustainability in CIMB.

c) Does the company follow TCFD framework for ESG reporting? Is it signatory to responsible banking initiative or other such initiatives?

Yes, the bank has committed to fully align to the TCFD framework in 2023 report. It has already embedded physical and transition risk into the Group's Risk library. It is the signatory to the Collective Commitment to Climate Action (CCCA) for aligning its portfolio to well-below 2C.

d) Does the bank capture Scope 3 emissions from financing activities?

The bank plans to capture the Scope 3 emissions from financing activities, but has yet to establish a baseline. It plans to establish sector-wide targets for 2030 and 2050 so as to reduce its Scope 3 emissions.

e) Does the bank have a firm deadline for exiting the financing of the coal sector?

Yes it does. No financing of new coal and to exit coal by 2040.

f) Does the bank have a "no deforestation, no peat, no exploitation (NDPE)" policy in place?

Yes it does. Starts mid-2022 for Malaysia and to be phased in across other geographies.

Target (Score: 100)		
Particulars	**Target**	**Achieved**
MYR30b sustainable finance mobilised by 2024	MYR30b	MYR25.9b
25% reduction in GHG emissions by 2024, net zero by 2030	25%	24%
100,000 volunteering hours annually by 2024	100,000 hrs	67%

Impact

NA

*** Peer Comparison**

We have benchmarked CIMB's ESG metrics against that of its closest listed peer with publicly available comparable metrics - Hong Leong Bank (HLBK MK; Buy; TP: MYR23.60). The peer's ESG standing has been assessed separately.

ESG score	Weights	Scores	Final Score
Quantitative	50%	50	25
Qualitative	25%	67	17
Target	25%	100	25
Total			**67**

CIMB has strong sustainability policies in place, but where it would be lacking would be in some of its environmental trends, while the recent double crediting issue has been a setback. It does need to set its financed emissions baseline as well. CIMB's overall ESG score is **67**, which is **above average** on our ESG rating (average ESG rating = 50; refer to Appendix I for our ESG Assessment Scoring).

BIMB Holdings Bhd

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Risk Rating & Score¹	N/A
Score Momentum²	N/A
Last Updated	N/A
Controversy Score³	N/A

Business Model & Industry Issues

- Bank Islam is the only Islamic bank that is directly listed on Bursa Malaysia. With its adherence to the principles of Shariah that advocate the promotion of the welfare and wellbeing of communities and environment, the bank is generally already very much ESG compliant in most areas, given that the latter carries the same message and aspirations.
- Bank Islam assumed the listing status of BIMB Holdings in 2021, which would largely explain the lack of ESG disclosures at this stage. Efforts no doubt will have to be made to step up sustainability disclosures to at least match those of its banking peers. It is currently in the process of developing sector guidelines and assessment criteria for all sectors that it may be exposed to, particularly high sustainability risk sectors.
- The banking sector is one of the transmission mechanisms for government stimulus programs under COVID-19 relief schemes, with an ongoing loan moratorium for the unemployed and reduced instalment payments for individuals that have suffered pay cuts. The PEMULIH programme ended in Dec 2021 but affected borrowers could still transition to the URUS programme or the bank's own internal Payment Relief Assistance Plans (PRAP). These repayment assistance programmes elevate social priorities over shareholders returns in the near term.
- That Bank Islam is principally a retail bank with limited corporate financing exposure reduces its environment and corporate governance issues, in our view. Moreover, the bank plays an important role in supporting the B40/M40 consumer groups, given its strength and niche in financing predominantly government civil servants and employees of government-linked companies.
- **BIMB also scores below-average in our proprietary scoring methodology (see next page) with an overall score of 43/100.**

Material E issues

- BIMB is said to already have one of the highest exposures to Green Financing in the banking industry, with Green Financing accounting for about 4% (MYR2.2b) of total financing, and it plans to raise this to 10-12% (MYR4b) of its portfolio by 2025.
- In 2021, Shariah-ESG funds accounted for more than 65% of its MYR1.43b in assets under management. It was the lead manager or joint lead manager for sukuk issues that qualified for an ESG rating.
- Bank Islam is a component stock on the FTSE4Good Bursa Malaysia Shariah Index.

Material S issues

- A key concern of Islamic finance is to eliminate poverty and serve human welfare, which aligns with the objectives of the UN's Sustainable Development Goals. Towards this objective, BIMB Investment launched Malaysia's first Waqf Featured Unit Trust Fund in March 2021.
- Since 2018, Sadaqa House, its principal social finance vehicle, has collected over MYR9m and aims to raise the figure to MYR40m by 2025. It disbursed MYR3.6m in 2021 to more than 4,700 beneficiaries among the more vulnerable sections of society.
- In 2021, BIMB approved MYR138.9m in financing for 5 affordable housing projects and approved MYR111.9m for 8 infrastructure and public facility projects.
- Under its LEAP25 strategy, BIMB has set a target of reaching 5,000 social finance beneficiaries by 2025.

Key G metrics and issues

- Bank Islam has not had any material accounting & tax, lobbying & public policy, sanctions related, data privacy or security controversies in the past 5 years.
- Bank Islam's BOD comprises 11 directors – 8 Independent Non-Executive Directors, 2 Non-Independent Non-Executive Directors and 1 Non-Independent Executive Director.
- The bank discloses the remuneration of each of its directors.
- Of its 11 Directors, only 2 (18%) are women at the moment, which is an issue it needs to resolve.
- Bank Islam is audited by PricewaterhouseCoopers, the world's second largest network of professional firms.
- The CEO's remuneration was MYR2.9m in FY21, representing 0.5% of the group's net profit.
- Managing Shariah non-compliance risk (SNCR) is spearheaded by the group's Shariah Risk Management Unit and Shariah matters are deliberated on by the bank's internal Shariah Supervisory Council.

¹*Risk Rating & Score* - derived by Sustainalytics and assesses the company's exposure to unmanaged ESG risks. Scores range between 0 - 50 in order of increasing severity with low/high scores & ratings representing negligible/significant risk to the company's enterprise value, respectively, from ESG-driven financial impacts. ²*Score Momentum* - indicates changes to the company's score since the last update - a negative integer indicates a company's improving risk score; a positive integer indicates a deterioration. ³*Controversy Score* - reported periodically by Sustainalytics in the event of material ESG-related incident(s), with the impact severity scores of these events ranging from Category 0-5 (0 - no reports; 1 - negligible risks; ...; 5 - poses serious risks & indicative of potential structural deficiencies at the company).

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	Quantitative Parameters (Score: 36)				
	Particulars	**Unit**	**2020**	**2021**	*** HLBK MK**
E	Scope 1 emissions	tonnes CO2e	-	-	134
	Scope 2 emissions	tonnes CO2e	-	-	23,541
	Total	**tonnes CO2e**	**-**	**-**	**23,675**
	Scope 3 emissions	tonnes CO2e	-	-	1,294
	Total	**tonnes CO2e**	**-**	**-**	**24,969**
	GHG intensity (Scope 1 and 2)	kg CO2e/emp	-	-	3,200
	Exposure to coal, mining & plantation	% of loan book	-	-	10.0%
	Electricity consumption	MWh	1,980	1,900	41,633
	Water consumption	m3	-	-	75,549
	Petrol consumption	litres	-	-	54,008
	Solid paper disposal	reams	19,084	10,363	na
S	% of women in workforce	%	-	48.5%	62.6%
	% of women in management roles	%	-	na	55.7%
	Attrition rate	%	-	3.4%	10.7%
G	MD/CEO salary as % of reported net profit	%	0.48%	0.53%	0.51%
	Board salary as % of reported net profit	%	0.52%	0.70%	0.05%
	Independent directors on the Board	%	67%	73%	63%
	Profits distributed to shareholders	% of net profit	49.8%	42.5%	35.8%
	Female directors on the Board	%	22%	18%	38%

Qualitative Parameters (Score: 0)

a) Is there an ESG policy in place and whether there is a standalone ESG Committee or is it part of Risk committee?

Yes, there is. Standalone Board Strategic & Sustainability Committee

b) Does the performance evaluation of the board and senior mgt include a review of the performance of the board and senior management in addressing the company's material sustainability risks and opportunities? Practice 4.4

No mention.

c) Does the company follow TCFD framework for ESG reporting? Is it signatory to responsible banking initiative or other such initiatives?

BIMB aspires to align its business operations and growth with the UN Sustainable Development Goals. BIMB is using a combined methodology utilizing data and references from multiple sources to form a basis for application of the CCPT guidelines.

d) Does the company capture Scope 3 emissions from financing activities?

No mention.

e) Does the bank have a firm deadline for exiting the financing of the coal sector?

Yes. To phase out and end-financing of coal related activities by 2030.

Target (Score: 100)		
Particulars	**Target**	**Achieved**
To phase out and end-financing of coal related activities by 2030	NA	NA
To double green financing book to RM4b by 2025 from RM2.2b in 2021	MYR4b	MYR2.2b

Impact

NA

*** Peer Comparison**

We have benchmarked BIMB's ESG metrics against that of its closest listed peer with publicly available comparable metrics - Hong Leong Bank (HLBK MK; Buy; TP: MYR23.60). The peer's ESG standing has been assessed separately.

ESG score	Weights	Scores	Final Score
Quantitative	50%	36	18
Qualitative	25%	0	0
Target	25%	100	25
Total			**43**

Having assumed the listing status of its parent company, BIMB Holdings, in 2021, ESG disclosures are lacking at this stage and the bank is currently in the process of developing sector guidelines and assessment criteria for all sectors that it may be exposed to, particularly high sustainability risk sectors. BIMB's overall ESG score is **43**, which makes its ESG rating below average in our view (average ESG rating = 50; refer to Appendix I for our ESG Assessment Scoring).

Hong Leong Bank Bhd

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Risk Rating & Score[1]	18.7 (Low)
Score Momentum[2]	-5.6
Last Updated	14 Oct 2022
Controversy Score[3] (Updated: 12 Aug 2020)	0 - No reported incidents

Business Model & Industry Issues

- HL Bank has consistently maintained one of the lowest impaired loans ratios in the industry and one of the most liquid balance sheets. This, in our view, is testimony to strong management capabilities and the group's emphasis on corporate governance.
- The banking sector is one of the transmission mechanisms for government stimulus programs under COVID-19 relief schemes, with an ongoing loan moratorium for the unemployed and reduced instalment payments for individuals that have suffered pay cuts. The PEMULIH programme ended in Dec 2021 but affected borrowers could still transition to the URUS programme or the bank's own internal Payment Relief Assistance Plans (PRAP). These repayment assistance programmes elevate social priorities over shareholders returns in the near term.
- HL Bank displays no exceptional risks not typical of a large bank for ESG. That the bank is principally a retail bank with limited corporate lending exposure significantly reduces its environment and corporate governance issues, in our view.
- **HLBK also scores above-average in our proprietary scoring methodology (see next page) with an overall score of 76/100.**

Material E issues

- Strong focus on digitalization, with 91% of total transactions completed digitally in FYE6/22, with a six-fold increase in accounts opened through Apply@HLB. 85% of all new customers were onboarded digitally, either via Apply@HLB or via iPad.
- HL Bank is rated 4-Stars on FTSE4Good. It has been internally rated by RAM Sustainability with a "Gold" rating in overall ESG aspects. It ranks above average on the WWF Sustainable Banking Assessment.
- MYR2.4b renewable energy projects approved in FY22, MYR10.8b green & affordable mortgages and MYR484m green auto ((hybrid and electric vehicles) financing.
- Committed to GHG emissions reduction of 15-25% by 2026, net zero scope 1&2 by 2030 and carbon neutral by 2050.
- 18% of its portfolio assessed to be from high E&S risk sectors - manufacturing (7%), palm oil (6%), metals/mining & quarrying (3%) & non-renewable energy (1%).

Material S issues

- In FY22, the bank had approved PRAP totalling MYR35.4b to close to 188,000 retail, SME and corporate customers.
- In FY21, the bank's attrition rate was 10.7% versus 12.5% in FY20.
- HL Bank's female employees outnumber male employees, with the former accounting for 62.6% of total permanent employees in FY21, while the percentage of women in the management roles was 55.7%.
- In FY21, 3 of the 8 Board of Directors members were female.
- The bank has embedded Sustainability/Value-based Intermediation related Key Result Areas (KRAs) for bankwide employees and senior management remunerations are linked to these KRAs.

Key G metrics and issues

- Hong Leong Bank has not had any material accounting & tax, lobbying & public policy, sanctions related, data privacy or security controversies in the past 5 years.
- Hong Leong Bank has consistently maintained one of the highest levels of asset quality in the industry as well as one of the most liquid balance sheets with an internal loan/deposit ratio cap of 85%.
- The CEO's remuneration was MYR14.6m in FY21, representing 0.5% of the group's net profit.
- The Board of Directors comprises 1 Executive Director and 7 Non-Executive Directors, of whom five are Independent Non-Executive Directors.
- The group discloses the remuneration of each individual Director in its annual report.
- IT expenses amounted to MYR210m in FY22, representing 10% of total operating expenses.
- HL Bank is audited by PricewaterhouseCoopers, the world's second largest network of professional firms. PwC has been their auditors over the past 10 years, at the very least.
- HL Bank has an 18% stake in China's Bank of Chengdu (BOC), which accounted for a significant 24% of group pretax profit in FY22. Although HL Bank has two Board representatives at BOC, there is no guarantee that HL Bank can influence the ESG direction of BOC, in our view. BOC is a separately listed entity on the Shanghai Stock Exchange.

[1]***Risk Rating & Score*** - derived by Sustainalytics and assesses the company's exposure to unmanaged ESG risks. Scores range between 0 - 50 in order of increasing severity with low/high scores & ratings representing negligible/significant risk to the company's enterprise value, respectively, from ESG-driven financial impacts. [2]***Score Momentum*** - indicates changes to the company's score since the last update – a negative integer indicates a company's improving risk score; a positive integer indicates a deterioration. [3]***Controversy Score*** - reported periodically by Sustainalytics in the event of material ESG-related incident(s), with the impact severity scores of these events ranging from Category 0-5 (0 - no reports; 1 - negligible risks; ...; 5 - poses serious risks & indicative of potential structural deficiencies at the company).

ESG@MAYBANK IBG

	Quantitative Parameters (Score: 69)					
	Particulars	**Unit**	**2019**	**2020**	**2021**	*** CIMB MK**
E	Scope 1 GHG emissions	m tCO2e	181	154	134	5,024
	Scope 2 GHG emissions	m tCO2e	26,777	25,416	23,541	66,941
	Total	**m tCO2e**	**26,958**	**25,570**	**23,675**	**71,965**
	Scope 3 GHG emissions	m tCO2e	794	1,091	1,294	189
	Total	**m tCO2e**	**27,752**	**26,661**	**24,969**	**72,154**
	GHG intensity (Scope 1 and 2)	kgCO2e/t	3,498	3,481	3,200	2,163
	Exposure to coal, mining & plantation	% of loan book	na	na	10.0%	7.2%
	Electricity consumption	MWh	46,955	44,700	41,633	107,089
	Water consumption	m3	101,046	88,901	75,549	550,709
	Petrol consumption	litres	90,511	66,314	54,008	18,598
	Solid waste recycled	tonnes	26,162	31,031	24,881	126,165
S	% of women in workforce	%	na	62.0%	62.6%	56.7%
	% of women in management roles	%	na	55.2%	55.7%	48.0%
	Attrition rate	%	-18% YoY	12.5%	10.7%	14.3%
	Policy, data & framework breaches	number	0	0	0	1
G	MD/CEO salary as % of reported net profit	%	0.58%	0.69%	0.51%	0.11%
	Board salary as % of reported net profit	%	0.04%	0.05%	0.05%	0.23%
	Independent directors on the Board	%	63%	63%	63%	70%
	Profits distributed to shareholders	% of net profit	38.4%	29.5%	35.8%	50.1%
	Female directors on the Board	%	38%	38%	38%	30%

Qualitative Parameters (Score: 67)

a) Is there an ESG policy in place and whether there is a standalone ESG Committee or is it part of Risk committee?

Yes. Standalone Sustainability Committee and Sustainability Working Committee

b) Does the performance evaluation of the board and senior mgt include a review of the performance of the board and senior management in addressing the company's material sustainability risks and opportunities?

Yes. The bank has embedded Sustainability/Value Based Intermediation-related Key Results Areas (KRAs) for bankwide employees and senior management remunerations are linked to these KRAs.

c) Does the bank follow TCFD framework for ESG reporting? Is it signatory to responsible banking initiative or other such initiatives?

Yes. Based on the TCFD recommendations, the bank has conducted a preliminary qualitative assessment of climate change risks and opportunities and their potential positive financial, business and operational impact.

d) Does the bank capture Scope 3 emissions from financing activities?

No mention

e) Does the bank have a firm deadline for exiting the financing of the coal sector?

Ceased financing of greenfield coal-fired power plants effective July 2021 and to cease new financing of all coal-fired power plants effective 1 Jul 2026

Does the bank have no deforestation, no peat, no exploitation (NDPE) policies in place?

Yes, as represented in its General Exclusion List on activities that result in significant conversion or degradation of any high biodiversity value areas.

Target (Score: 100)

Particulars	Target	Achieved
15-25% GHG emissions reduction by 2026 from 2019, net zero scope 1 & 2 by 2030, carbon neutral by 2050.	15-25%	10%
To cease new financing of all coal-fired power plants effective 1 Jul 2026.	NA	NA
To finance MYR4b renewable energy projects by FY25.	MYR4b	MYR2.4b
To finance MYR12b green & affordable mortgages by FY23	MYR12b	MYR10.8b

Impact

NA

*** Peer Comparison**

We have benchmarked HLBK's ESG metrics against that of its closest listed peer with publicly available comparable metrics - CIMB Group Holdings (CIMB MK; Buy; TP: MYR6.20). The peer's ESG standing has been assessed separately.

ESG score	Weights	Scores	Final Score
Quantitative	50%	69	34
Qualitative	25%	67	17
Target	25%	100	25
Total			**76**

HL Bank's ESG disclosures are very comprehensive for a mid-sized bank and there are no major compliance issues, as far as we can assess. It does, however, need to set a Financed Emissions baseline. HL Bank's overall ESG score is **76**, which is **above average** on our ESG rating (average ESG rating = 50; refer to Appendix I for our ESG Assessment Scoring), and it is one of the highest for banks in our coverage.

Hong Leong Financial Group Bhd

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Risk Rating & Score[1]	27.4 (Medium)
Score Momentum[2]	-3.0
Last Updated	14 Oct 2022
Controversy Score[3] (Updated: 03 May 2013)	0 - No reported incidents

Business Model & Industry Issues

- HLFG is essentially a financial holding company with a 65.6% stake in Hong Leong Bank (HL Bank, Malaysia's fifth largest bank by asset size), a 100% stake in HLA Holdings which in turn holds a 70% stake in Hong Leong Assurance and an 83.2% stake in Hong Leong Capital (HL Capital, which houses the group's stockbroking and asset management arms).
- The banking sector is one of the transmission mechanisms for government stimulus programs under COVID-19 relief schemes, with an ongoing loan moratorium for the unemployed and reduced instalment payments for individuals that have suffered pay cuts. The PEMULIH programme ended in Dec 2021 but affected borrowers could still transition to the URUS programme or the bank's own internal Payment Relief Assistance Plans (PRAP). These repayment assistance programmes elevate social priorities over shareholders returns in the near term.
- That HLFG is more diversified than HL Bank does imply that it carries higher ESG risk, but HL Bank contributes to >90% of HLFG's group earnings, which places much of the ESG onus on the bank. HL Bank displays no exceptional risks not typical of a large bank for ESG. That the bank is principally a retail bank with limited corporate lending exposure significantly reduces its environment and corporate governance issues, in our view.
- **HLFG also scores above-average in our proprietary scoring methodology (see next page) with an overall score of 66/100.**

Material E issues

- HLFG is a constituent of the FTSE4Good Bursa Malaysia Index.
- HL Bank has a strong focus on digitalization, with 91% of total transactions completed digitally in FYE6/22, with a six-fold increase in accounts opened through Apply@HLB. 85% of all new customers were onboarded digitally, either via Apply@HLB or via iPad.
- MYR2.4b renewable energy projects approved in FY22, MYR10.8b green & affordable mortgages and MYR484m green auto ((hybrid and electric vehicles) financing.
- Committed to GHG emissions reduction of 15-25% by 2026, net zero scope 1&2 by 2030 and carbon neutral by 2050.
- 18% of HL Bank's portfolio assessed to be from high E&S risk sectors - manufacturing (7%), palm oil (6%), metals/mining & quarrying (3%) & non-renewable energy (1%).

Material S issues

- Of HLFG's 7 Board of Directors members in FY21, 3 were female. The company has in place a Board Diversity Policy. Similarly, 3 of HL Bank's 8 BOD members in FY21 are female, 3 of HL Capital's 5 BOD members are female while 3 of HLA's 7 BOD members are female.
- In FY21 54.9% of HLFG group's employees were female, with 48% in management roles.
- The attrition rate was 8.32% in FY21.

Key G metrics and issues

- HLFG's Board of Directors (BOD) comprised 7 members in FY21, of whom 5 are non-Executive. HL Bank's BOD also comprises 1 Executive Director and 7 Non-Executive Directors, of whom five are Independent Non-Executive Directors. HLA Holdings has 4 Directors of whom 3 are Independent Non-Executive Directors.
- In FY21, total remuneration of HLFG's CEO was MYR9.9m, representing 0.4% of the group's pretax profit. HL Bank's CEO's remuneration was MYR14.6m in FY21, representing 0.5% of the bank's pretax profit
- The group discloses the remuneration of each individual Director in its annual report.
- HLFG is audited by PricewaterhouseCoopers, the world's second largest network of professional firms. PwC has been, at the very least, their auditors over the past 10 years.
- HL Bank has not had any material accounting & tax, lobbying & public policy, sanctions related, data privacy or security controversies in the past 5 years.
- Hong Leong Bank has consistently maintained one of the highest levels of asset quality in the industry as well as one of the most liquid balance sheets with an internal loan/deposit ratio cap of 85%.
- HL Bank has an 18% stake in China's Bank of Chengdu (BOC), which accounted for a significant 24% of group pretax profit in FY21. Although HL Bank has two Board representatives at BOC, there is no guarantee that HL Bank can influence the ESG direction of BOC. BOC is a separately listed entity on the Shanghai Stock Exchange.

[1]***Risk Rating & Score*** - derived by Sustainalytics and assesses the company's exposure to unmanaged ESG risks. Scores range between 0 - 50 in order of increasing severity with low/high scores & ratings representing negligible/significant risk to the company's enterprise value, respectively, from ESG-driven financial impacts. [2]***Score Momentum*** - indicates changes to the company's score since the last update - a negative integer indicates a company's improving risk score; a positive integer indicates a deterioration. [3]***Controversy Score*** - reported periodically by Sustainalytics in the event of material ESG-related incident(s), with the impact severity scores of these events ranging from Category 0-5 (0 - no reports; 1 - negligible risks; ...; 5 - poses serious risks & indicative of potential structural deficiencies at the company).

ESG@MAYBANK IBG

	Quantitative Parameters (Score: 73)					
	Particulars	**Unit**	**2019**	**2020**	**2021**	*** CIMB MK**
E	Scope 1 GHG emissions	m tCO2e	181	154	134	5,024
	Scope 2 GHG emissions	m tCO2e	26,777	25,416	23,541	66,941
	Total	**m tCO2e**	**26,958**	**25,570**	**23,675**	**71,965**
	Scope 3 GHG emissions	m tCO2e	794	1,091	1,294	189
	Total	**m tCO2e**	**27,752**	**26,661**	**24,969**	**72,154**
	GHG intensity (Scope 1 and 2)	kgCO2e/t	3,498	3,481	3,200	2,163
	Exposure to coal, mining & plantation	% of loan book	na	na	10.0%	7.2%
	Electricity consumption	MWh	46,955	44,700	41,633	107,089
	Water consumption	m3	101,046	88,901	75,549	550,709
	Petrol consumption	litres	90,511	66,314	54,008	18,598
	Solid waste recycled	tonnes	26,162	31,031	24,881	126,165
S	% of women in workforce	%	na	na	62.6%	56.7%
	% of women in management roles	%	na	na	54.9%	48.0%
	Attrition rate	%	na	na	8.3%	14.3%
G	MD/CEO salary as % of reported net profit	%	0.63%	0.44%	0.44%	0.11%
	Board salary as % of reported net profit	%	0.06%	0.07%	0.06%	0.23%
	Independent directors on the Board	%	67%	83%	71%	70%
	Profits distributed to shareholders	% of net profit	25.9%	22.6%	20.3%	50.1%
	Female directors on the Board	%	50%	50%	43%	30%

Qualitative Parameters (Score: 17)

a) Is there an ESG policy in place and whether there is a standalone ESG Committee or is it part of Risk committee?

Not at the holding company level, but at individual subsidiaries.

b) Does the performance evaluation of the board and senior mgt include a review of the performance of the board and senior management in addressing the company's material sustainability risks and opportunities?

No mention at the holding company level. HL Bank has embedded Sustainability/Value Based Intermediation-related Key Results Areas (KRAs) for bank-wide employees and senior management remunerations are linked to these KRAs.

c) Does the company follow TCFD framework for ESG reporting? Is it signatory to responsible banking initiative or other such initiatives?

Yes. Report prepared in accordance with the Global Reporting Initiative Standards, and guided by the Recommendations of the TCFD and UN SDGs.

d) Does the group capture or plan to capture Scope 3 emissions including from financing activities?

No mention at the bank level.

e) Does the bank have a firm deadline for exiting the financing of the coal sector?

HL Bank ceased financing of greenfield coal-fired power plants effective July 2021 and to cease new financing of all coal-fired power plants effective 1 Jul 2026.

f) Does the bank have a "no deforestation, no peat, no exploitation (NDPE)" policy in place?

Yes, as represented in Hong Leong Bank's General Exclusion List on activities that result in significant conversion or degradation of any high biodiversity value areas.

Target (Score: 100)		
Particulars	**Target**	**Achieved**
15-25% GHG emissions reduction by 2026 from 2019, net zero scope 1 & 2 by 2030, carbon neutral by 2050.	15-25%	10%
To cease new financing of all coal-fired power plants effective 1 Jul 2026.	NA	NA
To finance MYR4b renewable energy projects by FY25.	MYR4b	MYR2.4b
To finance MYR12b green & affordable mortgages by FY23	MYR12b	MYR10.8b
To finance MYR0.5b green auto loans by FY23	MYR0.5b	(MYR0.5b
15-25% GHG emissions reduction by 2026 from 2019, net zero scope 1 & 2 by 2030, carbon neutral by 2050.	15-25%	10%
To cease new financing of all coal-fired power plants effective 1 Jul 2026.	NA	NA

Impact

NA

*** Peer Comparison**

We have benchmarked HLFG's ESG metrics against that of its closest listed peer with publicly available comparable metrics - CIMB Group Holdings (CIMB MK; Buy; TP: MYR6.20). The peer's ESG standing has been assessed separately.

ESG score	Weights	Scores	Final Score
Quantitative	50%	73	37
Qualitative	25%	17	4
Target	25%	100	25
Total			**66**

While HLFG is a more complete financial services provider, >90% of its earnings are derived from HL Bank and its ESG strategy is largely driven by the bank's. HLFG's overall ESG score is **66**, which makes its ESG rating **above average** in our view (average ESG rating = 50; refer to Appendix I for our ESG Assessment Scoring).

Public Bank Bhd

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Risk Rating & Score[1]	26.8 (Medium)
Score Momentum[2]	+0.3
Last Updated	03 Aug 2022
Controversy Score[3] (Updated: 06 Jul 2022)	1 - Product/services, business ethics incidents

Business Model & Industry Issues

- Public Bank has consistently maintained one of the lowest impaired loans and cost/income ratios in the industry as well as highest ROEs. This, in our view, is testimony to strong management capabilities and its emphasis on corporate governance.
- Succession at the Board level is an issue that has consistently been under scrutiny. The other area which it may have to step up on, in our view, is digital spending, which is currently lagging its larger peers.
- The banking sector is one of the transmission mechanisms for government stimulus programs under COVID-19 relief schemes, with an ongoing loan moratorium for the unemployed and reduced instalment payments for individuals that have suffered pay cuts. The PEMULIH programme ended in Dec 2021 but affected borrowers could still transition to the URUS programme or the bank's own internal Payment Relief Assistance Plans (PRAP). These repayment assistance programmes elevate social priorities over shareholders returns in the near term.
- Public Bank displays no exceptional risks not typical of a large bank for ESG. That the bank is principally a retail bank with limited corporate lending exposure significantly reduces its environment and corporate governance issues, in our view.
- **PBK also scores above-average in our proprietary scoring methodology (see next page) with an overall score of 63/100.**

Material E issues

- Public Bank is a constituent of the FTSE4Good Index Series. It is rated AA in the MSCI ESG Ratings and it has been accorded the Gold Award over 3 consecutive years by the Asset ESG Corporate Awards.
- Being principally a retail bank, Public Bank has immaterial exposure to the O&G and aviation sectors. Its exposure to the palm oil sector is <1% of total loans.
- Its environmental conservation efforts have been extended to its operations in Cambodia and Vietnam, with key initiatives being reducing paper usage, promoting paper recycling and embedding energy saving culture.
- Menara Public Bank 2 has been awarded "Gold" rating by the US Green Building Council under the Leadership in Energy and Environmental Design Green Building Rating System and the Malaysia Green Building Confederation under the Green Building Index certification system.

Material S issues

- Women empowerment is a key strength of the group with 48.1% of women in management, 50.4% of women in top management and 33.3% of women on the Board of Directors as at end-2021;
- In support of the local economy, 94% of its ICT sourcing and procurement cost in 2021 was channelled to local vendors.
- Public Bank has a low employee attrition rate of just 5.1%.
- With its Queue Management System, 90% of its customers were served within 2 minutes, while 99% of customers were served within 10 minutes, in 2021.

Key G metrics and issues

- Public Bank has not had any material accounting & tax, lobbying & public policy, sanctions related, data privacy or security controversies in the past 5 years.
- Public Bank has consistently maintained one of the highest levels of asset quality in the industry as well as strong efficiency levels, with its cost/income ratio consistently being among the lowest in the industry.
- The CEO's remuneration was MYR40.6m in 2021, representing 0.7% of the group's net profit.
- The Board of Directors comprises 1 Executive Director and 8 Non-Executive Directors, of whom five are Independent Non-Executive Directors.
- Four of the 9 Directors are over the age of 70, including the Chairman Emeritus, Chairman and MD/CEO. Only the MD/CEO, however, is Executive.
- Tan Sri Dato' Sri Tay Ah Lek has been the group's MD/CEO since July 2002 i.e. over 20 years and he was a pioneer staff of the bank in 1966. The group's Deputy CEO is Dato' Chang Kat Kiam, has been with Public Bank since 1975 and was appointed to his present position in Jan 2016.
- IT expenses amounted to MYR63m in FY21 representing 1.6% of total operating expenses. Management attributes the lower percentage of IT spend relative to peers, to its large in-house IT team, which oversees the IT development for the group.
- Public Bank has been audited by Ernst & Young since 2015, succeeding KPMG who were the previous auditors.

[1]*Risk Rating & Score* - derived by Sustainalytics and assesses the company's exposure to unmanaged ESG risks. Scores range between 0 - 50 in order of increasing severity with low/high scores & ratings representing negligible/significant risk to the company's enterprise value, respectively, from ESG-driven financial impacts. [2]*Score Momentum* - indicates changes to the company's score since the last update - a negative integer indicates a company's improving risk score; a positive integer indicates a deterioration. [3]*Controversy Score* - reported periodically by Sustainalytics in the event of material ESG-related incident(s), with the impact severity scores of these events ranging from Category 0-5 (0 - no reports; 1 - negligible risks; ...; 5 - poses serious risks & indicative of potential structural deficiencies at the company).

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	Quantitative Parameters (Score: 60)					
	Particulars	**Unit**	**2019**	**2020**	**2021**	*** HLBK MK**
E	Scope 1 GHG emissions	tonnes CO2e	215	135	154	134
	Scope 2 GHG emissions	tonnes CO2e	27,605	25,678	23,811	23,541
	Total	**tonnes CO2e**	**27,820**	**25,813**	**23,965**	**23,675**
	Scope 3 GHG emissions	tonnes CO2e	2,448	1,606	1,615	1,294
	Total	**tonnes CO2e**	**30,268**	**27,419**	**25,580**	**24,969**
	GHG intensity (Scope 1 and 2)	kg CO2e/emp	2,110	1,940	1,822	3,200
	Exposure to coal, mining & plantation	% of loan book			NA	10.0%
	Electricity consumption	MWh	48,152	44,807	41,616	41,633
	Water consumption	m3	148,091	120,352	79,013	75,549
	Petrol consumption	litres	na	na	na	54,008
	Solid waste recycled	reams	170,292	149,579	147,960	NA
S	% of women in workforce	%	59.2%	59.4%	59.8%	62.6%
	% of women in management roles	%	50.2%	52.2%	52.5%	55.7%
	Attrition rate	%	13.4%	11.1%	12.1%	10.7%
G	MD/CEO salary as % of reported net profit	%	0.20%	0.20%	0.19%	0.51%
	Board salary as % of reported net profit	%	0.17%	0.21%	0.14%	0.05%
	Independent directors on the Board	%	55%	60%	60%	63%
	Profits distributed to shareholders	% of net profit	50.1%	34.8%	62.9%	35.8%
	Female directors on the Board	%	27%	30%	33%	38%

Qualitative Parameters (Score: 33)

a) Is there an ESG policy in place and whether there is a standalone ESG Committee or is it part of Risk committee?
Yes, there is a standalone Sustainability Management Committee.

b) Does the performance evaluation of the board and senior mgt include a review of the performance of the board and senior management in addressing the company's material sustainability risks and opportunities?
To be implemented effective 2022.

c) Does the company follow TCFD framework for ESG reporting? Is it signatory to responsible banking initiative or other such initiatives?
It has taken guidance from the Financial Stability Board's TCFD, and the Group will continue to progressively step up its efforts in implementing and disclosing climate related matters guided by the recommendations of the TCFD.

d) Does the group capture or plan to capture Scope 3 emissions including from financing activities?
No mention.

e) Does the bank have a firm deadline for exiting the financing of the coal sector?
The bank has no exposure to the coal sector.

f) Does the bank have a "no deforestation, no peat, no exploitation (NDPE)" policy in place?
Yes. This is incorporated into its ESG lending exclusion list.

Target (Score: 100)

Particulars	Target	Achieved
To mobilise RM15b in affordable home financing by 2050.	MYR15b	NA
To mobilise MYR25b in energy efficient vehicles financing by 2025.	MYR25b	MYR17b
To achieve carbon neutral position in GHG emissions by 2030, net zero GHG emission by 2050	NA	NA

Impact

NA

*** Peer Comparison**

We have benchmarked PBK's ESG metrics against that of its closest listed peer with publicly available comparable metrics - Hong Leong Bank (HLBK MK; Buy; TP: MYR23.60). The peer's ESG standing has been assessed separately.

ESG score	Weights	Scores	Final Score
Quantitative	50%	60	30
Qualitative	25%	33	8
Target	25%	100	25
Total			**63**

Public Bank's sustainability ratings are comfortable, in our view. We look forward to the bank adopting a performance evaluation of the board and senior management that is sustainability-driven, and a firmer commitment towards TCFD. Public Bank's overall ESG score is **63**, which is **above average** on our ESG rating (average ESG rating = 50; refer to Appendix I for our ESG Assessment Scoring).

RHB Bank Bhd

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Risk Rating & Score[1]	25.8 (Medium)
Score Momentum[2]	+1.5
Last Updated	13 Oct 2022
Controversy Score[3] (Updated: 12 Oct 2022)	2 - Product/services, business ethics incidents

Business Model & Industry Issues

- RHB Bank has the highest CET1 ratios among its domestic peers at 17.2% at the group level and 15.2% at the bank level as at end-Dec 2021. These ratios place the bank in a strong position to weather through the presently volatile economic environment both domestically and abroad.
- The banking sector is one of the transmission mechanisms for government stimulus programs under COVID-19 relief schemes, with an ongoing loan moratorium for the unemployed and reduced instalment payments for individuals that have suffered pay cuts. The PEMULIH programme ended in Dec 2021 but affected borrowers could still transition to the URUS programme or the bank's own internal Payment Relief Assistance Plans (PRAP). These repayment assistance programmes elevate social priorities over shareholders returns in the near term.
- RHB Bank displays no exceptional risks not typical of a large bank for ESG. The group's earnings are principally driven by its domestic operations, while regional contributions are relatively insignificant at this stage (<5%). This domestic concentration reduces its overall environment and corporate governance issues, in our view.
- **RHB also scores above-average in our proprietary scoring methodology (see next page) with an overall score of 65/100**.

Material E issues

- A constituent of FTSE4Good Bursa Malaysia with an MSCI ESG rating of AA. S&P Global ESG Score of 47/100 in 2021.
- MYR5b Green Financing Commitment by 2025. MYR4.32b extended as at end-2021, 20.7% was for RE projects.
- Structured and executed Malaysia's first Green Cross Currency Interest Rate Swap transaction set against ESG-linked KPIs to hedge a USD100m 2-year sustainable loan.
- Established a Group Climate Action Programme to implement requirements under the BNM Climate Change and Principle-based Taxonomy.
- The Group recorded a 41% reduction in GHG emissions intensity per employee in 2021 compared to 2016.
- Will no longer finance any new thermal coal mine projects and coal-fired power plant projects from 2022.
- As at end-Dec 2021, the group's exposure to O&G loans and bonds accounted for 1.9% of total loans.

Material S issues

- The Board of Directors comprised 3 females (33%) and 6 males as at end-Dec 2021. Females comprised 60% of its total workforce in 2021.
- Repayment assistance to 312,992 retail customers (MYR34.5b) and 7,133 SME customers (MYR12.9b) in 2021.
- Digital transactions accounted for 93% of total customer transactions in 2021, up from 86% in 2020.
- As at Dec 2021, it had upskilled over 600 employees in Digital, IT and Analytics to build proficiency in high-demand and future-looking skills.
- Benefited 4,000 underprivileged students from the B40 segment and 40 schools since the launch of RHB X-Cel Academic Excellence in 2018.
- Increased financial literacy for more than 25k secondary students since launch of Money Ma$ter Programme in 2018.

Key G metrics and issues

- RHB Bank has not had any material accounting & tax, lobbying & public policy, sanctions related, data privacy or security controversies in the past 5 years.
- RHB's BOD comprised 1 executive director/Managing Director, 1 non-independent non-executive Chairman, 6 independent non-executive directors and 1 non-independent non-executive director as at end-2021.
- The Managing Director's remuneration was MYR4.9m in FY21, representing 1.4% of the group's pretax profit.
- The group discloses the remuneration of each individual Director in its annual report.
- IT expenses amounted to MYR280m in FY21 representing 8.0% of total operating expenses.
- RHB Bank is audited by PricewaterhouseCoopers, the world's second largest network of professional firms. PwC has been, at the very least, their auditors over the past 10 years.
- The EPF is a major shareholder of the group with a 41.8% stake as at 14 Sep 2022, which implies that RHB Bank is a Government-linked company. Previous attempts to reduce this shareholding through potential M&As have since fallen through but this does not preclude future attempts at doing so.
- On 18 June 2021, RHB Bank said it had discovered an error in the issuance of current account e-statements sent via email to a number of customers, due to a technical issue at its external service partner. This affected less than 0.5% of its total retail customer base and the problem was swiftly addressed.

[1]*Risk Rating & Score* - derived by Sustainalytics and assesses the company's exposure to unmanaged ESG risks. Scores range between 0 - 50 in order of increasing severity with low/high scores & ratings representing negligible/significant risk to the company's enterprise value, respectively, from ESG-driven financial impacts. [2]*Score Momentum* - indicates changes to the company's score since the last update - a negative integer indicates a company's improving risk score; a positive integer indicates a deterioration. [3]*Controversy Score* - reported periodically by Sustainalytics in the event of material ESG-related incident(s), with the impact severity scores of these events ranging from Category 0-5 (0 - no reports; 1 - negligible risks; ...; 5 - poses serious risks & indicative of potential structural deficiencies at the company).

ESG@MAYBANK IBG

Quantitative Parameters (Score: 80)						
	Particulars	Unit	2019	2020	2021	* HLBK MK
E	Scope 1 GHG emissions	tonnes CO2e	215	135	154	134
	Scope 2 GHG emissions	tonnes CO2e	27,605	25,678	23,811	23,541
	Total	**tonnes CO2e**	**27,820**	**25,813**	**23,965**	**23,675**
	Scope 3 GHG emissions	tonnes CO2e	2,448	1,606	1,615	1,294
	Total	**tonnes CO2e**	**30,268**	**27,419**	**25,580**	**24,969**
	GHG intensity (Scope 1 and 2)	kg CO2e/emp	2,110	1,940	1,822	3,200
	Exposure to coal, mining & plantation	% of loan book			NA	10.0%
	Electricity consumption	MWh	48,152	44,807	41,616	41,633
	Water consumption	m3	148,091	120,352	79,013	75,549
	Petrol consumption	litres	na	na	na	54,008
	Solid waste recycled	reams	170,292	149,579	147,960	NA
S	% of women in workforce	%	59.2%	59.4%	59.8%	62.6%
	% of women in management roles	%	50.2%	52.2%	52.5%	55.7%
	Attrition rate	%	13.4%	11.1%	12.1%	10.7%
G	MD/CEO salary as % of reported net profit	%	0.20%	0.20%	0.19%	0.51%
	Board salary as % of reported net profit	%	0.17%	0.21%	0.14%	0.05%
	Independent directors on the Board	%	55%	60%	60%	63%
	Profits distributed to shareholders	% of net profit	50.1%	34.8%	62.9%	35.8%
	Female directors on the Board	%	27%	30%	33%	38%

Qualitative Parameters (Score: 0)

a) Is there an ESG policy in place and whether there is a standalone ESG Committee or is it part of Risk committee?

Yes, there is a dedicated GCAP Project Steering Committee, a Climate Risk Management Team and an appointed Group Chief Sustainability Officer.

b) Does the performance evaluation of the board and senior mgt include a review of the performance of the board and senior management in addressing the company's material sustainability risks and opportunities?

Sustainability related evaluation is included in the performance scorecard of the Sustainability Management Team but not necessarily that of the board and other senior management.

c) Does the company follow TCFD framework for ESG reporting? Is it signatory to responsible banking initiative or other such initiatives?

It has aligned its sustainability initiatives and achievements with 6 prioritized UN SDGs, and adopted a soft approach to TCFD for climate-related disclosures.

d) Does the group capture or plan to capture Scope 3 emissions including from financing activities?

No mention.

e) Does the bank have a firm deadline for exiting the financing of the coal sector?

No new coal financing from 2022 onwards, to eventually phase out existing coal financing exposures.

f) Does the bank have a "no deforestation, no peat, no exploitation (NDPE)" policy in place?

Yes, it does. Effective 2022, the bank will only support responsible companies that demonstrate alignment with NDPE for relevant sectors in the agriculture, forestry and palm oil sectors.

Target (Score: 100)		
Particulars	**Target**	**Achieved**
RM20b in sustainable financial services by 2026	MYR20b	MYR4.3
No financing for new thermal coal mine projects and new coal-fired power plant projects effective 2022	NA	NA
Carbon neutral operations by 2030. To reduce operational GHG emissions intensity per employee by 45% from baseline 2016.	-45%	-41%
RHB Sustainability Financing Programme provides various green financing solutions to retail and SME customers - targets RM1b in new financing by 2025	MYR1b	MYR44.3m
Impact		
NA		
*** Peer Comparison**		
We have benchmarked RHB's ESG metrics against that of its closest listed peer with publicly available comparable metrics - Hong Leong Bank (HLBK MK; Buy; TP: MYR23.60). The peer's ESG standing has been assessed separately.		

ESG score	Weights	Scores	Final Score
Quantitative	50%	80	40
Qualitative	25%	0	0
Target	25%	100	25
Total			**65**

RHB's sustainability trends are moving in the right direction. A firmer commitment (as opposed to a soft approach) towards adopting the recommendations of the TCFD would be positive. RHB's overall ESG score is **65**, which is **above average** on our ESG rating (average ESG rating = 50; refer to Appendix I for our ESG Assessment Scoring).

Bursa Malaysia Bhd

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Risk Rating & Score[1]	13.1 (Low)
Score Momentum[2]	0.0
Last Updated	03 Jul 2021
Controversy Score[3] (Updated: 03 Dec 2011)	0 - No reported incidents

Business Model & Industry Issues

- As an exchange operator and regulator, Bursa encourages sustainable development by promoting responsible growth while facilitating fund raising, value and wealth creation. Its globally benchmarked FTSE4Good Bursa Malaysia Index was introduced in Dec 2014, and listing criterias have been amended requiring PLCs to report on their sustainability practices.
- As a PLC, Bursa's sustainability and ESG efforts are guided by global best practices. Its Governance Model for Regulation & Conflicts Management is similar to that of the NYSE, HKEX and ASX. Meanwhile, establishment of a Regulatory Subsidiary is underway.
- Bursa's Sustainability Roadmap 2021-23 focuses on strengthening its core, driving growth, protecting the environment, empowering its workforce, and advancing the communities.
- In our view, Bursa's ESG risks (as a PLC) are low; this is positive for its valuation over the longer term as more investors include ESG considerations in their investment decisions.
- **Bursa also scores well above-average in our proprietary scoring methodology (see next page) with an overall score of 73/100.**

Material E issues

- In 2018, Bursa became an official supporter of the Task Force on Climate-related Financial Disclosures (TFCD).
- Bursa published its Sustainability Policy in Dec 2020 and launched its Sustainability Roadmap 2021-23 in 2021.
- In Sep 2021, Bursa announced its commitment to achieving carbon neutrality by 2022 and net zero greenhouse gas (GHG) emissions by 2050. It also set up a dedicated sustainability committee at the Board level.
- Bursa has reduced its electricity consumption (in MWh) by 12% from 2017 to 2021; its energy intensity (in MWh/m2) has reduced by a higher 14.8%. Its Scope 2 GHG emissions (from grid power consumption) was also down by 16%.
- Bursa's waste management approach includes responsible disposal of e-waste via a licensed operator and recycling. In 2021, it recycled 17,350kg of paper and 1,264kg of fabric-based items.

Material S issues

- Bursa's staff force is diverse in gender and ethnicity. The male-to-female split was 52%-48% in 2021, with female representation at senior managerial level at 42%, while the gender pay ratio was 1-to-1. 58% of Bursa's staff was of Malay ethnicity, 32% Chinese, 9% Indian.
- Bursa had invested MYR1.49m and 20,380 training hours in its employees in 2021, or an average of 26.6 hours for its male, and 37.3 hours for its female employees. GO1, an e-learning platform for employees, was launched in 2018.
- Yayasan Bursa Malaysia (YBM) undertakes Bursa's flagship community investment programmes. Since its inception in 2006, YBM scholarship has benefitted 79 students. Bursa has also pledged 1% of its profit after tax (in 2020 & 2021) to corporate social responsibility (CSR) activities via YBM.
- 2 flagship CSR programmes were launched in 2021: *re:Food* (garnering donations of food especially for the B40 group) and *Sens-Ability* (financial literacy programmes for individuals).
- Bursa's COVID-19 community response in 2021 amounted to MYR5.8m, the bulk was donation of oxygen concentrators and to the government's CERDIK programme.

Key G metrics and issues

- Bursa's Board comprises 10 Directors - 9 Independent Non-Executive Directors (INED) + 1 Executive Director (also the CEO).
- Sec 10(1)(a) of the Capital Markets and Services Act 2007 provides that 1/3 of Bursa's Board (including its Chairman) shall be Public Interest Directors (PID), appointed by the Minister of Finance in consultation with Securities Comm. 4 of Bursa's INED - including its Chairman - are PIDs.
- There are 3 women on its Board (30% representation).
- Bursa has an established Governance Model where specific powers of its Board are delegated to Board Committees and the CEO. There are 9 Board Committees presently: (i) 3 Governance Committees (Audit, Risk Management, Nomination & Remuneration); (ii) 2 Development Committees (Technology & Cybersecurity, Sustainability & Development); (iii) 4 Regulatory Committees (Regulatory & Conflicts, Appeals, Market Participants, Listing).
- Bursa has a Whistleblower Policy and Procedures (WPP) for employees and external parties to report on any breaches or suspected breaches of law and regulation, and business principles. In 2019, the Anti-Fraud, Bribery and Corruption Policy replaced a pre-existed Corporate Fraud Policy for more structured, systematic and consistent monitoring. In 2020, an Organisational Anti-Corruption Plan was developed under the oversight of a new Integrity & Governance Unit.
- Bursa provides detailed disclosure on renumeration of directors and key management. In FY21, remuneration to Directors (plus CEO) and 6 key senior management made up 1.4% and 1.8% respectively of Bursa's pretax profit.
- Bursa has been audited by Ernst & Young, at least since 2004 (Bursa was listed on 18 Mar 2005).
- Transactions with related parties (including with government-linked and other entities by virtue of substantial shareholding in Bursa) have been on terms and conditions not materially different from those transactions with unrelated parties.

[1]***Risk Rating & Score*** - derived by Sustainalytics and assesses the company's exposure to unmanaged ESG risks. Scores range between 0 - 50 in order of increasing severity with low/high scores & ratings representing negligible/significant risk to the company's enterprise value, respectively, from ESG-driven financial impacts. [2]***Score Momentum*** - indicates changes to the company's score since the last update - a negative integer indicates a company's improving risk score; a positive integer indicates a deterioration. [3]***Controversy Score*** - reported periodically by Sustainalytics in the event of material ESG-related incident(s), with the impact severity scores of these events ranging from Category 0-5 (0 - no reports; 1 - negligible risks; ...; 5 - poses serious risks & indicative of potential structural deficiencies at the company).

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	Quantitative Parameters (Score: 80)						
	Particulars	Unit	2018	2019	2020	2021	SGX (FY22)
E	Scope 1 GHG emissions	tCO2e	30	33	5	113	33
	Scope 2 GHG emissions	tCO2e	6382	6230	6309	5951	3735
	Total	**tCO2e**	**6412**	**6263**	**6314**	**6064**	**3770**
	Scope 3 GHG emissions	tCO2e	NA	64	3	1524	4966
	Total	**tCO2e**	**6412**	**6327**	**6317**	**7588**	**8736**
	GHG intensity (Scope 1)	tCO2e/m2	0.16	0.16	0.16	0.15	NA
	Energy consumption	MWh	9196	8977	9090	8990	NA
	Energy intensity	MWh/m2	0.23	0.22	0.23	0.23	NA
	Groundwater extracted	m3	0	93441	292949	598215	NA
	Waste sent for landfill/recycling	kg	580338	587665	560188	371222	NA
S	% of women in workforce	%	47.9%	48.7%	48.6%	47.6%	45.0%
	% of women in senior management	%	53.6%	53.3%	44.4%	42.1%	26.0%
	Gender pay ratio	-	NA	1-to-1	1-to-1	1-to-1	NA
	Community investment	MYR m	2.1	1.8	3.2	6.3	SGD2+m
	YBM scholarship prog (no. supported)	-	19.0	18.0	14.0	19.0	NA
G	MD/CEO salary as % of pre-tax profit	%	1.29%	0.91%	0.42%	0.56%	1.19%
	Board salary as % of pre-tax profit	%	1.17%	1.38%	0.73%	0.81%	0.42%
	Independent directors on the Board	%	90%	90%	91%	90%	58%
	Female directors on the Board	%	30%	50%	36%	30%	17%

Qualitative Parameters (Score: 100)

a) Is there an ESG policy in place and whether there is a standalone ESG committee or is it part of a risk committee?
Yes - in 2021, Bursa set up a dedicated sustainability committee at the Board level, ie. Sustainability and Development Committee.

b) Is the senior management salary linked to fulfilling ESG targets?
Yes - targets relating to specific sustainability strategies/initiatives are included as Key Performance Indicators in the Corporate Scorecard and/or Division Scorecard (CEO-1 scorecard).

c) Does the company follow the task force of climate related disclosures (TCFD) framework for ESG reporting?
Not yet - but Bursa is an official supporter of TCFD (since 2018) and has embarked on an exercise (in 2021) to align its processes and disclosures with the core elements of the TCFD recommendations.

d) Does the company have a mechanism to capture Scope 3 emissions - which parameters are captured?
Yes - the parameters are business travel, employees' commute, homeworking, waste disposal, business travel, paper consumption, water consumption. Bursa's carbon emissions data for 2021 (ex- paper and water consumption) have been verified by Carbon Trust.

e) What are the 2-3 key carbon mitigation/water/waste management strategies adopted by the company?
For water management, Bursa has (since 2011) utilise groundwater extracted from a stream located near its Head Office as non-potable water; it installed a meter (in 2019) to monitor usage. For waste management, non-hazardous waste are disposed in the Bukit Tagar landfill. Hazardous waste are disposed in an environmentally responsible manner according to government legislations via a licensed operator. Well-labelled paper recycling bins are provided throughout its office for employees to recycle paper.

As an Exchange, in embedding sustainability into the marketplace, Bursa has inked a MOU (in Jan 2022) with the M'sian Palm Oil Certification Council to advance sustainabiity adoption in the palm oil industry. It also launched #myfirstrade# campaign (Mar 2022) to raise awareness on gender equality, amongst others. Bursa will launch its Voluntary Carbon Market (VCM) Exchange by end-2022.

f) Does carbon offset form part of the net zero/carbon neutrality target of the company?
Yes - to meet its carbon neutrality target for 2022, Bursa will offset all measured GHG emissions generated in 2021.

Target (Score: 33)

Particulars	Target	Achieved
Carbon neutrality by 2022	Neutral	N/A
Net zero greenhouse gas (GHG) emissions by 2050	Net-0	N/A
1% of PAT towards corporate social responsibility (CSR) activities	1.0%	1.8% (2021)

Impact

N/A

*** Peer Comparison**

We have benchmarked Bursa's ESG metrics against that of its closest listed peer with publicly available comparable metrics - Singapore Exchange Ltd (SGX SP; Buy, TP: SGD10.65). The peer's ESG standing has been assessed separately.

ESG score	Weights	Scores	Final Score
Quantitative	50%	80	40
Qualitative	25%	100	25
Target	25%	33	8
Total			**73**

As per our ESG assessment, BURSA has an established framework, internal policies, and tangible mid/long-term targets. BURSA's overall ESG score is **73**, which makes its ESG rating **above average**, in our view (average ESG rating = 50; refer to Appendix I for our ESG Assessment Scoring).

CONSTRUCTION

Gamuda Bhd

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Risk Rating & Score[1]	35.3 (High)
Score Momentum[2]	-0.5
Last Updated	24 Jan 2022
Controversy Score[3] (Updated: 28 Sep 2022)	1 - Society incidents (community relations), business ethics incidents

Business Model & Industry Issues

- As a leading engineering and property group, Gamuda acknowledges its heavy ESG responsibility including that of the environment.
- Milestones in 2021 included the launch of '*Gamuda Green Plan 2025*' (GGP), the Group's ESG framework, anchored on 4 pillars: (1) sustainable planning & design, and circular construction; (2) community & business; (3) environmental & biodiversity conservation; (4) enhancing sustainability via digitalisation. GGP commits to reduce corporate GHG emission intensity by 30% in 2025, 45% in 2030 (from base year 2021).
- With the view that ESG and digital will be central to Gamuda's operations moving forward, young leaders in their 30s fill at least half the Board seats and executive positions in Gamuda Engineering & Gamuda Land since Jan 2021.
- Gamuda is at the forefront in managing its ESG risks, in our view. Its enhanced resume will lend support in the future tender of major engineering & infrastructure projects in Malaysia and overseas.
- **Gamuda also scores above-average in our proprietary scoring methodology (see next page) with an overall score of 68/100.**

Material E issues

- Besides GHG reduction commitment, GGP's other strategic priorities are (i) a 40% reduction in CO_2e emission by 2030, (ii) planting of 1m trees/saplings by 2023 (302k planted as of end-FY21), (iii) developing 2,000 acres of green/waterscapes over 12 urban forest clusters within its property projects by 2023.
- E&C: GGP commits to a 'circular construction' approach by maximising efficiency of raw materials/resources & reducing wastages (20% reduction of construction waste to landfill, 50% recycling of water at construction sites - both by 2025).
- Property: Gamuda Parks (GP), set up in 2018 to formalise the Group's efforts in land and biodiversity conservation in its development projects, jointly manages (with the Govt) the *Paya Indah Discovery Wetlands* (1,114 acres), located next to the *Gamuda Cove* development. GP's agendas include (i) a wetland arboretum to regenerate flora and fauna species, and address carbon storage value, and (ii) biodiversity audits in Gamuda's developments in collaboration with local experts.
- Penang South Islands: To be a low carbon development - smart industrial park will be powered by renewable energy; low carbon mobility has been incorporated into the masterplan.

Material S issues

- Gamuda's staff force (3,615 end-FY21) is diversified in race (Bumiputera: 48%, Chinese: 30%, Indian: 5%, Others: 17%) and gender (women made up 35% end-FY21 vs. 31% end-FY20).
- Gamuda Plant Operator School (since 1997) and Tunnelling Training Academy (2011) have trained >45,000 and ~1,000 people respectively. BIM Academy (set up in 2018) aims to train >1,000 employees and subcontractors over 2020-22, in Building Information Modelling digital construction.
- To minimise COVID-19 infection within its workforce, Gamuda set up (i) a RT-PCR testing laboratory in 2020, with capacity to test 20,000 employees fortnightly; and (ii) Centralised Quarantine Quarters at every Centralised Labour Quarters. It has launched Gamuda Clinics, serving also the community.
- The Group allocates 2% of its profits p.a. to Yayasan Gamuda (YG), set up in 2016. Enabling Academy, under YG, has trained 66 autism disorder adults and assisted them in securing jobs with >30 partner companies since 2017. YG has awarded 471 scholarships since 1996; the *Star Golden Hearts Award* is YG's annual recurring anchor project, now into its 5th year (2022).

Key G metrics and issues

- Gamuda's Board comprises 7 Directors: 4 Independent Non-Executive (incl. Chairman) + 1 Non-Independent Non-Executive + 2 Executive. Independent directors make up 57% of its Board. Its Independent Non-Executive Directors have not served a cumulative term >9 years each as recommended by the Malaysian Code on Corporate Governance.
- There are presently 3 women on Gamuda's Board or 43% representation, above the 30% requirement.
- Gamuda provides detailed disclosure on remuneration of directors and top 5 Group senior management. In FY21, remuneration to executive directors (including to alternate directors) was 1.3% of pretax profit, non-executive directors 0.1%, and top 5 senior management 0.5%.
- Gamuda has been audited by Ernst & Young for 20 years since FY02 (and Arthur Andersen, prior to that).
- Gamuda's Integrity and Governance Unit (IGU) was set up on 13 Dec 2019, in line with the Malaysian Anti-Corruption Commission's Strategic Plan of IGU 2019-21. Two policies were adopted in FY21: (i) Anti-Bribery and Corruption Policy; (ii) Whistleblowing Policy and Procedures (which superseded the 2011 whistleblowing policy). Integrity Pledges for directors and staff were also implemented in FY21.
- Since 2018, the Group has digitalised procurement to raise transparency and efficiency. The Group's Digital Procurement Platform leverages on the SAP Ariba e-platform. >MYR300m has been saved since the digitalisation of procurement and supply chain processes, via supply chain collaboration.
- Transactions with related parties include fees for professional services rendered by a law firm of which a director has an interest. The amount is small, at up to MYR1.3m p.a. over FY16-FY21. There were no other material contracts involving directors and major shareholders during our period of review (FY16-FY21).

[1]***Risk Rating & Score*** - derived by Sustainalytics and assesses the company's exposure to unmanaged ESG risks. Scores range between 0 - 50 in order of increasing severity with low/high scores & ratings representing negligible/significant risk to the company's enterprise value, respectively, from ESG-driven financial impacts. [2]***Score Momentum*** - indicates changes to the company's score since the last update - a **negative** integer indicates a company's improving risk score; a **positive** integer indicates a deterioration. [3]***Controversy Score*** - reported periodically by Sustainalytics in the event of material ESG-related incident(s), with the impact severity scores of these events ranging from Category 0-5 (0 - no reports; 1 - negligible risks; ...; 5 - poses serious risks & indicative of potential structural deficiencies at the company).

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	Quantitative Parameters (Score: 53)						
	Particulars	Unit	FY18	FY19	FY20	FY21	IJM (FY22)
E	Scope 1 GHG emissions	tCO2e	9460	6071	1287	2998	28312
	Scope 2 GHG emissions	tCO2e	4622	4759	4723	14845	38995
	Total	**tCO2e**	**14082**	**10830**	**6010**	**17843**	**67307**
	Scope 3 GHG emissions	tCO2e	NA	NA	NA	NA	365817
	Total	**tCO2e**	**NA**	**NA**	**NA**	**NA**	**433124**
	GHG intensity (Scope 1 and 2)	tCO2e/m2	NA	NA	NA	NA	NA
	Energy consumed	MWh	NA	3333	NA	22111	69455
	Share of renewable energy use in operations	%	NA	NA	NA	Negligible	4%
	Water recycled across Gamuda Land sites	m3	NA	NA	NA	334333	NA
	Cases of environmental non-compliance	number	NA	0	0	0	1
S	% of women in workforce	%	30.0%	29.0%	31.1%	34.8%	36.0%
	% of women in senior management	%	20.0%	20.0%	20.0%	23.0%	34.0% (Σmgmt)
	Lost time injury frequency (LTIF) rate - GEngg	number	NA	1.94	1.27	1.94	0.63 (grp)
	Lost time injury frequency (LTIF) rate - GLand	number	NA	0.44	NA	0.00	NA
	Enabling Academy (pax trained since 2017)	number	19	40	63	66	NA
	Gamuda scholarship (pax supported fr 1996)	number	376	410	444	471	>350
G	MD/CEO remuneration as % of PBT	%	0.74%	0.67%	0.97%	0.56%	0.65%
	Board (ex-CEO) remuneration as % of PBT	%	1.89%	1.27%	1.51%	0.86%	1.35%
	Independent directors on the Board	%	57%	57%	57%	57%	55%
	Female directors on the Board	%	43%	43%	43%	43%	27%

Qualitative Parameters (Score: 100)

a) Is there an ESG policy in place and whether there is a standalone ESG committee or is it part of a risk committee?
Yes - a Sustainability Steering Committee chaired by Group MD and which meets quarterly with the Group CSO reports to the Board.

b) Is the senior management salary linked to fulfilling ESG targets?
Yes - ESG parameters are incorporated in performance evaluation of all employees, including senior management.

c) Does the company follow the task force of climate related disclosures (TCFD) framework for ESG reporting?
Yes - Gamuda is committed to SBTi and is an official supporter to TCFD. In FY21, Gamuda aligned its sustainability reporting to all four TCFD themes - governance, strategy, risk management, metrics & targets.

d) Does the company have a mechanism to capture Scope 3 emissions - which parameters are captured?
Yes - for now, the parameter is just employees' commute.

e) What are the 2-3 key carbon mitigation/water/waste management strategies adopted by the company?
Gamuda has planted 302,081 trees, meeting 30% of its target for 1m trees by 2023. This will support the development of 2,000 acres of green/waterscapes (total investments of e.MYR33m) across 12 forest clusters within its property townships. Gamuda has also installed solar PV panels on its assets (FY21: Gamuda Gardens sales gallery, Celadon Sports & Resort Club; FY22E: 6 other assets) as it targets to develop >300MW of its own RE assets. The KVMRT2 project has water treatment plants at the construction sites for 24 hours active sites' wastewater treatment where the treated water is used for wheel washing & other cleaning purposes.

f) Does carbon offset form part of the net zero/carbon neutrality target of the company?
Yes - Gamuda has set clear internal targets and parameters for carbon offsetting.

Target (Score: 67)

Particulars	Target	Achieved
Reduce Scope 1 & 2 emissions intensity by 30% in 2025, 45% in 2030; Net zero by 2050	Net-0	N/A
Plant 1m trees by 2023 under the Advance Tree Planting scheme	1 mil	30.2%
300MW of new RE projects over the next 5 years (from FY21)	300MW	NA
All property projects to be Green Building Index (GBI) certified	GBI	Yes
Gamuda scholarship - to double the quantum allocation	2x	NA
2% of yearly PBT allocation to Yayasan Gamuda	2.0%	Not disclosed

Impact

NA

*** Peer Comparison**

We have benchmarked GAM's ESG metrics against that of its closest listed peer with publicly available comparable metrics - IJM Corp (IJM MK; Buy; TP: MYR2.14). The peer's ESG standing has been assessed separately.

ESG score	Weights	Scores	Final Score
Quantitative	50%	53	26
Qualitative	25%	100	25
Target	25%	67	17
Total			**68**

As per our ESG assessment, GAM has an established framework, internal policies, and tangible mid/long-term targets but needs to make headway in improving its quantitative "E" disclosures. GAM's overall ESG score is 68, which makes its ESG rating above-average in our view (average ESG rating = 50; refer to Appendix I for our ESG Assessment Scoring).

IJM Corporation Bhd

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Risk Rating & Score[1]	33.3 (High)
Score Momentum[2]	-2.6
Last Updated	20 Oct 2022
Controversy Score[3] (Updated: 19 Oct 2022)	1 - Operations incidents - Land Use and Biodiversity

Business Model & Industry Issues

- Due to the diversity of its business operations, IJM's ESG responsibility (on a combined basis) is heavier, and its ESG risks inevitably higher than that of its construction peers.
- Key mitigating factors are IJM's conviction to the highest levels of governance and ethical business conduct throughout all its operations, while its sustainability framework, established in 2017 and comprising 4 pillars - marketplace, environment, community, workplace [link] - provides the guide towards its environmental and social targets. The group's new Sustainability Roadmap FY23-FY25 is integrated into divisional roadmaps, accompanied by specific internal performance measures.
- In our view, IJM's ESG risks are manageable. Building on these efforts will strengthen its investment case.
- **IJM also scored above-average in our proprietary scoring methodology (see next page) with an overall score of 63/100**.

Material E issues

- Group-wide: 1) From FY22, IJM has started making reference to recommendations outlined by the TCFD framework; 2) Energy: 4% of FY22 energy mix was renewable energy, ie. solar; 3) Waste: 7.7% of FY22 waste footprint was reused / recycled; 4) Carbon footprint: Scope 1, 2 and 3 GHG up substantially in FY22 (13x FY21) as emission assessment was expanded across ALL its Malaysian ops beginning FY22.
- Construction: Completed green buildings todate comprise 18 GBI (FY21: 14), 6 GreenRE (FY21: 1) and 4 LEED (FY21: 1) projects. In FY22, 67% of waste (FY21: 51%) was recycled.
- Property: All on-going and new projects (of >50 ha each) undergo the Environmental Impact Assessment (EIA).
- Industry: Air, water, noise quality are monitored & mitigating measures implemented. In FY22, 32% of waste was recycled.
- In FY22, IJM's Industry Div received fines totalling MYR4k for non-compliance in handling of scheduled wastes at its quarry and ICP factory.

Material S issues

- IJM's staff force is diversified in ethnicity (Malaysia workforce in FY22: Bumiputra 64%, Chinese 27%, Indian 8%), and gender (women made up one-third). In FY22, MYR703k was spent on training, clocking 28,691 hrs (FY21: >24,800 hrs).
- Besides diversity and inclusion, IJM's Human Rights Policy provides guiding principles in areas of workplace security, no child labour nor exploitation in any forms, health & safety, and community rights. Its labour union represents 3% of its workforce (all in the Port division).
- In FY22, IJM contributed MYR4.5m (FY21: MYR2.9m) or 1.4% of pretax profit to the community in the form of charitable (12%) and investment initiatives (88%). This included *The COVID-19 Response Programme* - aid/support to shelter homes for the underprivileged, medical support, food supply/cash vouchers to food banks, soup kitchens, NGOs, etc.
- IJM Scholarship Award Programme (since 1994) has benefitted >350 students, including 10 in FY22 (FY21: 10).

Key G metrics and issues

- IJM's Board comprises 11 Directors (since 25 Aug 2022) of which 9 are Non-Executive (incl. Chairman) and 2 are Executive. Of its Non-Exec Directors, 6 (55% of total) are Independent. Independent Directors have not served a cumulative term of >9 years each, per recommendation of the Malaysian Code on Corporate Governance.
- There are now 3 women on IJM's Board (27% representation), short of the 30% requirement but improved over FY22's 18%.
- IJM provides detailed disclosure on renumeration of directors but not its top senior management. In FY22, remuneration to directors was 2% of pretax profit. Disclosures of its top 5 senior management's renumeration are in bands of MYR50k.
- IJM has been audited by PricewaterhouseCoopers since FY2000, at least.
- An Anti-Bribery and Corruption (ABC) System manages and consolidates policies and processes in compliance with the ABC laws, with IJM's ABC Policy forming part of the ABC System, setting out the parameters. IJM has also adopted the (i) Code of Conduct and Ethics for Employees, (ii) Code of Business Conduct for Third Parties (where ABC principles are extended to associates, business partners and supply chain), and (iii) Whistleblowing Policy, amongst others.
- Transactions with related parties that arose within the Group have been fair and reasonable, and there were no material contracts involving Directors and major shareholders during our period of review (FY16-FY22).

Policies in-place

Board Policy	Corporate Codes & Policies	Sustainability Policies
Board Diversity Policy	Anti-Bribery and Corruption Policy	Community Investment Policy
Directors' Fit & Proper Policy	Code of Conduct and Ethics for Employees	Diversity and Inclusion Policy
	Code of Business Conduct for Third Parties	Environment Policy
	Corporate Disclosure Policy	Human Rights Policy
	External Auditors Policy	Responsible Supply Chain Policy
	Privacy Policy	Occupational Safety and Health Policy
	Remuneration Policy	Quality Policy
	Whistleblowing Policy	

Source: www.ijm.com; FY22 Annual Report

[1]***Risk Rating & Score*** - derived by Sustainalytics and assesses the company's exposure to unmanaged ESG risks. Scores range between 0 - 50 in order of increasing severity with low/high scores & ratings representing negligible/significant risk to the company's enterprise value, respectively, from ESG-driven financial impacts. [2]***Score Momentum*** - indicates changes to the company's score since the last update - a negative integer indicates a company's improving risk score; a positive integer indicates a deterioration. [3]***Controversy Score*** - reported periodically by Sustainalytics in the event of material ESG-related incident(s), with the impact severity scores of these events ranging from Category 0-5 (0 - no reports; 1 - negligible risks; ...; 5 - poses serious risks & indicative of potential structural deficiencies at the company).

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	Quantitative Parameters (Score: 44)						
	Particulars	Unit	FY19	FY20	FY21	FY22	GAM (FY21)
E	Scope 1 GHG emissions	tCO2e	17179	14769	12167	28312	2998
E	Scope 2 GHG emissions	tCO2e	2155	2028	1796	38995	14845
E	**Total**	**tCO2e**	**19334**	**16797**	**13963**	**67307**	**17843**
E	Scope 3 GHG emissions	tCO2e	14521	21314	19227	365818	NA
E	**Total**	**tCO2e**	**33855**	**38111**	**33190**	**433125**	**NA**
E	GHG intensity (Scope 1 and 2)	tCO2e/m2	NA	NA	NA	NA	NA
E	Energy consumed	MWh	38683	48420	42730	69455	22111
E	Share of renewable energy use in operations	%	NA	NA	NA	4.0%	Negligible
E	Waste reused and recycled	%	NA	NA	NA	7.7%	NA
E	Cases of environmental non-compliance	number	0	1	1	1	0
S	% of women in workforce	%	33.3%	33.3%	33.3%	36.0%	34.8%
S	% of women in management roles	%	29.0%	31.0%	32.0%	34.0%	23.0%
S	Lost time injury frequency (LTIF) rate	number	3.07	2.92	6.31	0.63	1.94
S	Community investments as % of PBT	%	0.3%	1.2%	0.6%	1.4%	2.0%
S	IJM scholarship (pax supported since 1994)	number	>315	>330	>340	>350	471
G	MD/CEO remuneration as % of PBT	%	0.59%	2.04%	0.33%	0.65%	0.56%
G	Board (ex-CEO) remuneration as % of PBT	%	0.65%	0.65%	0.72%	1.35%	0.86%
G	Independent directors on the Board	%	73%	70%	64%	55%	57%
G	Female directors on the Board	%	18%	20%	18%	18%	43%

Qualitative Parameters (Score: 83)

a) Is there an ESG policy in place and whether there is a standalone ESG committee or is it part of a risk committee?
Yes - targets and priorities are addressed under IJM Group's Sustainability Roadmap FY23-25, supported by the Group Sustainability Steering Team.

b) Is the senior management salary linked to fulfilling ESG targets?
Yes - sustainability-related key performance indicators are in the balance scorecards of senior management for FY23.

c) Does the company follow the task force of climate related disclosures (TCFD) framework for ESG reporting?
Yes - beginning FY22, IJM has started making reference to the recommendations outlined by the TCFD framework.

d) Does the company have a mechanism to capture Scope 3 emissions - which parameters are captured?
Yes - in FY22, IJM collated 6 (out of 15) categories under Scope 3 of its M'sian ops - purchased goods & services, waste generated, business travels, employee commuting, downstream leased assets, investments; this will be expanded to its ops in India in FY23.

e) What are the 2-3 key carbon mitigation/water/waste management strategies adopted by the company?
IJM has conducted a group-wide carbon assessment to build its emissions profile that will help formulate its Climate Strategy, to be introduced in FY23. The Industry Div continues to explore methods to reduce its energy intensity with the use of Polycarboxylic Ether additives when manufacturing concrete piles. In FY22, IJM has installed 3,784 kWP solar rooftop photovoltaic panels at 6 of its factories under its Industry Div, and 337 kWp at The Arc located in its Bandar Rimbayu property development; it intends to expand this to its Port and Toll ops. Its new SMART IBS plant helps to lessen wastages vs. conventional construction methods.

f) Does carbon offset form part of the net zero/carbon neutrality target of the company?
Pending - IJM's Carbon Reduction Strategy is at the development stage (carbon reduction assessment is ongoing) and will be shared in its FY23 annual report.

Target (Score: 80)

Particulars	Target	Achieved
Net-zero carbon emissions by 2050	Net 0	N/A
Incorporate SDG 13: Climate Action in IJM's Sustainability Framework	FY23-25E	N/A
Formulate a Carbon Reduction Strategy	FY23E	N/A
Zero fatality & zero accident at all site ops	Zero	Yes
"Green" projects to replenish its construction orderbook	Green	Yes

Impact

NA

*** Peer Comparison**

We have benchmarked IJM's ESG metrics against that of its closest listed peer with publicly available comparable metrics - Gamuda Bhd (GAM MK; Buy; TP: MYR4.40). The peer's ESG standing has been assessed separately.

ESG score	Weights	Scores	Final Score
Quantitative	50%	44	22
Qualitative	25%	83	21
Target	25%	80	20
Total			**63**

As per our ESG assessment, IJM has an established framework and internal policies, but needs to formulate its Carbon Reduction Strategy and formalise its net-zero target. IJM's overall ESG score is **63**, which makes its ESG rating **above average** in our view (average ESG rating = 50; refer to Appendix I for our ESG Assessment Scoring).

CONSUMER

MR D.I.Y. Group (M) Bhd

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Risk Rating & Score[1]	31.4 (High)
Score Momentum[2]	-2.8
Last Updated	06 Sep 2021
Controversy Score[3] (Updated: 01 Feb 2021)	0 - No reported incidents

Business Model & Industry Issues

- As the largest home improvement retailer in Malaysia, its main environmental footprint results from electricity and fuel consumption by its retail stores, distribution centres and distribution fleet.
- For the group's social criteria, the risk lies with labour relations as majority of its products are supplied by third-party overseas manufacturers. To this end, MRDIY has clear guidelines and vendor onboarding processes to ensure that all suppliers are adequately vetted and evaluated to avoid involvement in any forced / child labour or unfair labour treatment charges. Suppliers that are suspected of unscrupulous labour practises will be thoroughly investigated and/or removed from its supplier list.
- Overall, MRDIY's ESG strategy is comparable to its industry peers, in our view. The group has developed direct ESG action points throughout the organisation to align its workforce with meeting its sustainability goals.
- **MRDIY also scored above-average in our proprietary scoring methodology (see next page) with an overall score of 52/100.**

Material E issues

- MRDIY's environmental concerns largely surround its energy consumption throughout its store network and distribution centres (DC), and fuel consumption utilised by its distribution fleet.
- In 2021, the group's electricity consumption amounted to 101.3m kWh in aggregate (DC: 4.4m kWh, retail: 96.7m kWh and Brunei operation: 0.3m kWh). MRDIY is in the midst of exploring various energy efficient methods i.e. installations of solar panels at DC's, and converting to energy efficient air-conditioners at all its stores in order to reduce its electricity usage going forward.
- Waste management is another area to address where c.7,726 tonnes of boxes were received from its suppliers in 2021 in addition to 34 tonnes of carton boxes purchased for distribution purposes. On average, MRDIY reuses each carton box 18 times before they are sent for recycling.
- The group is also promoting reusable bags in stores to lower its usage of single-use plastic bags.

Material S issues

- In 2021, MRDIY had a total workforce of 12,551 workers where female staff accounted for 44% of total.
- With majority of its products sourced from overseas third-party suppliers, the group requires all suppliers to adhere to its vendor code of conduct pertaining to product quality & safety, vendor workplace standards (no forced/child labour, fair treatment etc.) and vendor business & environmental practises.
- MRDIY also hopes to support more domestic businesses by targeting to increase its locally sourced products to 30% of total by 2025 (from c.29% currently).
- The group actively engages in its own CSR projects and partnerships with NGOs related to food drives, pandemic relief, and sponsorships for educational programs.

Key G metrics and issues

- MR DIY's board of directors comprises of 7 members - 4 independent non-executive directors, 3 non-independent executive directors including the CEO.
- Independent representation on the board reflects 57% independency which is above the MCCG's recommended practise for large companies i.e. of a majority of directors being independent. MR DIY does not plan to revise its board composition for now.
- In 2021, the male:female ratio on the board was 57:43, above the requirement to have at least 30% female representation on the boards of large companies.
- MR DIY has not engaged external independent experts to facilitate board evaluations yet given that they were only listed in 2020 and it is too premature to do so.
- The chairman and CEO positions are held by separate individuals.
- The CEO's total remuneration package totalled MYR1.1m in FY21 (c.0.1% of FY21's group PBT).
- MR DIY was listed 26 Oct 2020 and it has been audited by BDO PLT since then.
- The group discloses the total remuneration of its top five key senior management members in bands of MYR50,000 for FY21.
- Recurrent related party transactions occur mainly in relation to sales of goods and merchandise and product procurement, of which it amounted to c.1% of revenue in FY21.

[1]***Risk Rating & Score*** - derived by Sustainalytics and assesses the company's exposure to unmanaged ESG risks. Scores range between 0 - 50 in order of increasing severity with low/high scores & ratings representing negligible/significant risk to the company's enterprise value, respectively, from ESG-driven financial impacts. [2]***Score Momentum*** - indicates changes to the company's score since the last update - a negative integer indicates a company's improving risk score; a positive integer indicates a deterioration. [3]***Controversy Score*** - reported periodically by Sustainalytics in the event of material ESG-related incident(s), with the impact severity scores of these events ranging from Category 0-5 (0 - no reports; 1 - negligible risks; ...; 5 - poses serious risks & indicative of potential structural deficiencies at the company).

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	Quantitative Parameters (Score: 29)					
	Particulars	Unit	2019	2020	2021	* ACES IJ (2021)
E	Scope 1 GHG emissions	m tCO2e	NA	NA	NA	NA
	Scope 2 GHG emissions	m tCO2e	NA	NA	57,060	NA
	Total	**m tCO2e**	**NA**	**NA**	**NA**	**NA**
	Scope 3 GHG emissions	m tCO2e	NA	NA	NA	NA
	Total	**m tCO2e**	**NA**	**NA**	**NA**	**NA**
	CO2e intensity (Scope 2)	tCO2e/store	NA	NA	63.4	NA
	Electricity consumption per store	MWh/store	NA	NA	112.5	0.04
	Share of renewable energy usage	%	NA	NA	NA	NA
	Diesel consumption intensity	ltr/1,000 transactions	NA	NA	27.5	NA
	Consumption of single-use plastic bags	kg/1,000 transactions	NA	NA	8.3	NA
	Total new carton boxes purchase from suppliers	tonne	NA	96	34	NA
S	% of women in workforce	%	NA	42.7%	43.6%	30.2%
	% of women in management roles	%	NA	NA	NA	NA
	Training hours per employee	hr	NA	NA	12.4	NA
	Customer satisfaction	%	NA	NA	75%	88%
	Local sourcing	%	26.8%	28.4%	29.4%	22%
	Lost time injury frequency (LTIF) rate	%	0.47	0.52	0.70	NA
G	MD/CEO salary as % of reported net profit	%	NA	0.3%	0.3%	NA
	Board salary as % of reported net profit	%	NA	1.0%	0.8%	3.9%
	Independent directors on the Board	%	NA	50%	57%	50%
	Female directors on the Board	%	NA	33%	43%	33%

Qualitative Parameters (Score: 67)

a) is there an ESG policy in place and whether there is a standalone ESG committee or is it part of a risk committee?

Yes - it has a sustainability committee that reports to the management committee which is led by the CEO. The CEO oversees the progress of specific sustainability projects for the group.

b) is the senior management salary linked to fulfilling ESG targets?

Yes - sustainability KPIs are incorporated in the KPIs of senior management

c) Does the company follow the task force of climate related disclosures (TCFD) framework for ESG reporting?

Yes the company has adopted the recommendations as outlined in the Bursa Sustainability Reporting Guide

e) Does the company have a mechanism to capture Scope 3 emissions - which parameters are captured?

No - the only parameters disclosed and monitored at this juncture is scope 1 & 2 GHG emissions

f) What are the 2-3 key carbon mitigation/water/waste management strategies adopted by the company?

The group has installed solar panels at its distribution facility that is expected to generate 160MWh annually, equivalent to 4% of the total annual electricity consumption; aims to implement energy-saving devices, LED bulbs and phased installation of air-conditioning converter units at its retail stores; reuses the carton boxes received from its suppliers 18 times before it is sold to recycling centres.

g) Does carbon offset form part of the net zero/carbon neutrality target of the company?

No

Target (Score: 83)

Particulars	Target	Achieved
Reduce 2030 electricity consumption per store vs 2021 baseline	30%	NA
Increase renewable energy mix at distribution facilities by 2030	30%	4%
Reduce LTIF rate by 2025 vs 2020 baseline	0.0	0.7
Reduce diesel consumption by 2030 vs 2021 baseline	20%	0%
Reduce waste generated by 2030 vs 2021 baseline	40%	NA
Include eco-products into sales mix by 2030 vs 2021 baseline	10%	3%

Impact

NA

*** Peer Comparison**

We have benchmarked MRDIY's ESG metrics against that of its closest listed peer with publicly available comparable metrics - ACE Hardware (ACES IJ; Sell; TP: IDR425). The peer's ESG standing is not assessed and solely exists as a point of reference.

ESG score	Weights	Scores	Final Score
Quantitative	50%	29	14
Qualitative	25%	67	17
Target	25%	83	21
Total			**52**

MRDIY has a comprehensive ESG framework and established internal policies with tangible long-term targets but given its inaugural release of detailed data in 2021, its sustainability progress annually is yet to be determined. MRDIY's overall ESG score is **52**, which makes its ESG rating slightly **above average** in our view (average ESG rating = 50; refer to Appendix I for our ESG Assessment Scoring).

QL Resources Bhd

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Risk Rating & Score[1]	41.1 (Severe)
Score Momentum[2]	-0.6
Last Updated	18 Mar 2022
Controversy Score[3] (Updated: 21 Sep 2022)	0 - no reported incidents

Business Model & Industry Issues

- As a leading agro-food organisation, QLG's main ESG concern lies in its GHG emissions, waste management and health & safety of its products. The group is cognisant of its main emission contributors and is working on developing strategies to reduce its total GHG emissions through investments in solar energy and other renewable energy sources.
- QLG has stringent biosecurity measures in place to prevent pathogens from entering its poultry farms. High quality of its food products are also ensured by adhering to international food safety standards and obtaining all required industry certifications.
- Although the group provides some ESG disclosure, it is worth noting that the group has not publicly committed to any ESG targets or shared any sustainability guidelines in its annual report yet. This makes it difficult to monitor QLG’s progress on its journey to being ESG compliant.
- **QLG also scored below-average in our proprietary scoring methodology (see next page) with an overall score of 45/100.**

Material E issues

- Greenhouse gas emissions (GHG) are evident across all of QLG's core segments (livestock, marine, palm oil) where more than half of the group's total GHG emissions are from its livestock segment (61% from poultry raw manure).
- QLG has set GHG emissions intensity reduction target to be achieved by FY26.
- The palm oil division's GHG are the lowest among the group's core segments aided by its biogas plant where methane gas is captured and converted to energy that is reused to power the rest of its operations.
- Total GHG emissions were lowered by 25% in FY22 from FY20 but the group's production of renewable energy also increased by 28% YoY given increased biogas plant maintenance activities.
- QLG utilises fermentation technology to convert poultry manure into organic fertiliser where it is then sold to other farms and plantations. In FY22, its poultry farms have successfully converted 95% chicken manure into fertiliser.

Material S issues

- QLG has increased its Malaysian staff count to 7,530 in FY22 mostly due to the store expansions of its FamilyMart convenience stores.
- Female representation in its workforce makes up an average of 42.3% across its business operations.
- QLG has established stringent biosecurity measures and implemented risk rating systems to prevent and manage the potential impacts of diseases at their poultry farms (eg. closed-house systems, restricted worker access etc.)
- Developed an interest-free financial assistance programme for the fishing communities in Perak, Johor and Sabah to build, upgrade and modernise their fishing fleet. 914 fishermen has benefitted from this scheme in FY22, translating to a total of MYR20.8m in interest-free loans.

Key G metrics and issues

- QLG's board comprises of 15 Directors of which there are 7 independent non-executive directors, 8 executive directors, and the executive chairman and group managing director (GMD).
- Majority of the board members are independent directors (46.7%).
- 36% of the board are represented by female members.
- At present, Dr Chia Song Kun is the executive chairman of QLG. Within its succession plan, Mr Chia Song Kooi (GMD) will gradually take over the day-to-day management of the group within the next 3 years.
- The executive chairman's remuneration package amounted to MYR4.0m in FY22 (1.2% of the group's FY22 pre-tax profit).
- QLG has been audited by KPMG for the past two decades.
- QLG is required to enter into significant recurring related party transactions involving various parts of their agro-food business (i.e. sale & purchase of animal feed, fresh fruit bunches, fish etc.) for its day-to-day operations, with its subsidiaries and associate companies. That said, none of the group's directors or person(s) connected to them have related party transactions amounting to 1% of the group's revenue.
- QLG became the master franchisee of the FamilyMart convenience store (CVS) chain in 2016. This venture further expanded QLG’s consumer reach downstream and opened up additional revenue streams through cross selling of its surimi-based products at its CVS’.

[1]***Risk Rating & Score*** - derived by Sustainalytics and assesses the company’s exposure to unmanaged ESG risks. Scores range between 0 - 50 in order of increasing severity with low/high scores & ratings representing negligible/significant risk to the company’s enterprise value, respectively, from ESG-driven financial impacts. [2]***Score Momentum*** - indicates changes to the company's score since the last update - a negative integer indicates a company’s improving risk score; a positive integer indicates a deterioration. [3]***Controversy Score*** - reported periodically by Sustainalytics in the event of material ESG-related incident(s), with the impact severity scores of these events ranging from Category 0-5 (0 - no reports; 1 - negligible risks; ...; 5 - poses serious risks & indicative of potential structural deficiencies at the company).

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	Quantitative Parameters (Score: 63)					
	Particulars	**Unit**	**2020**	**2021**	**2022**	*** LHIB MK (2021)**
E	Scope 1 GHG emissions	k tCO_2e	NA	NA	NA	NA
	Scope 2 GHG emissions	k tCO_2e	NA	NA	NA	NA
	Total	**k tCO_2e**	**100.3**	**107.1**	**99.5**	**NA**
	Scope 3 GHG emissions	k tCO_2e	NA	NA	NA	NA
	Total	**k tCO_2e**	**100.3**	**107.1**	**99.5**	**NA**
	GHG intensity (Scope 1 and 2)	tCO_2e/MYR m	32.3	34.1	24.4	NA
	Energy intensity	GJ/MYR m	NA	256.1	190.1	NA
	Share of renewable energy usage	%	NA	5.5%	7.5%	NA
	Water withdrawal intensity	m3/MYR m	630.1	851.5	594.5	NA
	Total wastewater generated	'000 m3	NA	873.0	790.3	NA
	Chicken manure to organic fertilizer conversion rate	%	89.4%	84.0%	95.3%	NA
S	% of women in workforce	%	NA	43.0%	42.3%	26.6%
	% of women in management roles	%	NA	51.0%	67.2%	NA
	Lost time injury frequency (LTIF) rate	number	2.3	4.4	4.3	NA
	Total training hours per employee	hr	NA	9.3	14.1	NA
G	MD/CEO salary as % of reported net profit	%	1.0%	0.9%	1.4%	4.6%
	Board salary as % of reported net profit	%	6.5%	5.6%	9.0%	29.0%
	Independent directors on the Board	%	54.5%	58.3%	53.8%	45.5%
	Female directors on the Board	%	36.4%	36.4%	38.5%	27.3%

Qualitative Parameters (Score: 33)

a) is there an ESG policy in place and whether there is a standalone ESG committee or is it part of a risk committee?
Yes - there is a sustainability steering committee chaired by the group managing director and comprises of heads of business units and business functions that support the board in steering the group's sustainability efforts.

b) is the senior management salary linked to fulfilling ESG targets?
No.

c) Does the company follow the task force of climate related disclosures (TCFD) framework for ESG reporting?
No.

e) Does the company have a mechanism to capture Scope 3 emissions - which parameters are captured?
No.

f) What are the 2-3 key carbon mitigation/water/waste management strategies adopted by the company?
The group is progressively increasing solar panel installations at its operation sites. It also operates a biogas plant which uses methane captured to generate power for on-site operations with excess power sold to the local grid. To further reduce GHG emissions, chicken manure generated from its ILF operations are composted into organic fertilizer.

g) Does carbon offset form part of the net zero/carbon neutrality target of the company?
No.

Target (Score: 20)

Particulars	**Target**	**Achieved**
Reduce total GHG emissions	NA	NA
Increase renewable energy usage	NA	NA
Reduce water withdrawal intensity	NA	NA
Reduce hazardous waste and non-hazardous waste annually	NA	NA
Increase chicken manure conversion rate to organic fertiliser	NA	95.3%

Impact

NA

*** Peer Comparison**

We have benchmarked QLG's ESG metrics against that of its closest listed peer with publicly available comparable metrics - Leong Hup (LHIB MK; Hold; TP: MYR0.50). The peer's ESG standing is not assessed and solely exists as a point of reference.

ESG score	**Weights**	**Scores**	**Final Score**
Quantitative	50%	63	32
Qualitative	25%	33	8
Target	25%	20	5
Total			**45**

As per our ESG assessment, QLG has an established framework and internal policies but lacks concrete long-term targets. It would also be beneficial to publish GHG emissions in more detail. For these reasons, QLG's overall ESG score is **45**, which makes its ESG rating **below average** in our view (average ESG rating = 50; refer to Appendix I for our ESG Assessment Scoring).

Heineken Malaysia Bhd

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Risk Rating & Score[1]	21.6 (Medium)
Score Momentum[2]	-2.2
Last Updated	22 Dec 2021
Controversy Score[3] (Updated: 21 Feb 2015)	0 - No reported incidents

Business Model & Industry Issues

- As water is used in every step of the beer brewing process, water consumption and wastewater disposal are HEIM's main environmental challenges, especially when water scarcity is occurring on a more frequent basis due to climate change and/or pollution in the midst of robust growth in the brewery industry. To alleviate these issues, HEIM has implemented innovative solutions to optimise its production process and have adopted energy saving and water management strategies to lessen its environmental impact.
- Negative publicity stemming from recent drink-driving incidences has put incremental pressure on brewers in general to strengthen their stance on irresponsible consumption of alcohol. Although HEIM has continuously advocated for safe alcohol consumption practices, the increase in alcohol-related fatalities could result in harsher regulations on the industry.
- HEIM's ESG initiatives are comparable to its peers with similar guidelines and targets to reduce its environmental and social impact relating to the usage of natural resources, waste management and safe consumption of its products.
- **HEIM also scored above-average in our proprietary scoring methodology (see next page) with an overall score of 54/100.**

Material E issues

- With the United Nations Sustainable Development Goals in mind, HEIM launched its '2030 Every Drop' strategy in 2019 to address three issues: (i) water efficiency; (ii) water circularity; and (iii) water stewardship. Main targets to be achieved by 2030 are outlined below.
- In 2021, for every 1 litre of beer, 3.65 litres (2019: 3.67 litres) of water was used in the brewing process, falling short of its global commitment of reducing specific water consumption to 2.9 litres per litre of beer.
- HEIM also plans to treat 100% of its wastewater from all breweries and maximise the reuse and recycling of water for non-potable purposes.
- 100% of waste generated in 2021 was recycled and the group will continue to manage waste responsibly by investing in recycling waste management vendors.
- HEIM's largest global footprint comes from its packaging materials. Hence, the group utilises returnable packing materials i.e. bottles, kegs crates and cylinders and works with its trade partners through a deposit system to ensure these reusable materials are returned to the brewery.

Material S issues

- A total of 510 staff employed as at end-2021 with a male:female ratio of 55:45 within middle to senior management roles.
- HEIM strongly advocates for responsible alcohol consumption by allocating 10% of its marketing budget towards this cause annually.
- HEIM abides by its internal Responsible Marketing Code, where product marketing materials are reviewed according to company principles, including a restriction in brand exposure to minors. Through its CSR arm 'SPARK Foundation', HEIM introduced an English Enrichment Training programme to provide creative teaching techniques and support to rural community teachers.

Key G metrics and issues

- The board has 7 directors; 3 independent directors (including the chairman) and 4 non-independent directors.
- At 43%, independent director representation is below recommended industry practise (majority of independent directors on the board for large companies) but HEIM has no plans to change its board composition at this juncture.
- In terms of gender balance, HEIM has a 57:43 male to female ratio on its board of directors, exceeding the Government's target of having at least 30% women on the Board of PLCs.
- The chairman of the board and managing director (MD) positions are held by separate individuals.
- The chairman of the audit committee and the chairman of the board are also separate individuals.
- HEIM does not disclose detailed remuneration packages of its senior management for confidentiality reasons except for the group MD (total remuneration package for FY21 was MYR3.5m or 1.2% of pre-tax profit).
- HEIM has been audited by Messrs Deloitte PLT since 2017.
- The group conducted its 57th AGM virtually through live streaming using remote participation and voting facilities to ensure that all shareholders were able to participate and engage the board and senior management effectively.
- HEIM has related-party relationships with its holding corporations, related corporates, subsidiaries and key management personnel in regards to royalty payments, purchase of goods and marketing and technical fees. Its royalties paid historically accounted for c.2% of group revenue.

[1]***Risk Rating & Score*** - derived by Sustainalytics and assesses the company's exposure to unmanaged ESG risks. Scores range between 0 - 50 in order of increasing severity with low/high scores & ratings representing negligible/significant risk to the company's enterprise value, respectively, from ESG-driven financial impacts. [2]***Score Momentum*** - indicates changes to the company's score since the last update - a negative integer indicates a company's improving risk score; a positive integer indicates a deterioration. [3]***Controversy Score*** - reported periodically by Sustainalytics in the event of material ESG-related incident(s), with the impact severity scores of these events ranging from Category 0-5 (0 - no reports; 1 - negligible risks; ...; 5 - poses serious risks & indicative of potential structural deficiencies at the company).

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	Quantitative Parameters (Score: 50)					
	Particulars	**Unit**	**2019**	**2020**	**2021**	*** CAB MK (2021)**
E	Scope 1 GHG emissions	tCO2e	18,326	16,173	14,983	NA
	Scope 2 GHG emissions	tCO2e	N/A	N/A	N/A	NA
	Total	tCO2e	**NA**	**NA**	**NA**	**NA**
	Scope 3 GHG emissions	tCO2e	NA	NA	NA	NA
	Total	tCO2e	**NA**	**NA**	**NA**	**NA**
	Water usage	hl/hl	**3.67**	**3.65**	**3.65**	**4.00**
	Share of renewable energy usage %	kWh/hl	NA	NA	NA	NA
	Electricity usage	kWh/hl	9.81	10.33	10.62	10.60
	Total waste generated	tonnes	30,260	23,776	23,834	NA
	Rate of waste recycled	%	100%	100%	100%	NA
S	% of women in workforce	%	N/A	N/A	N/A	25.7%
	% of women in management roles	%	50.0%	50.0%	45.0%	35.0%
	Number of accidents (employees / contractors)	number	7	9	1	NA
G	MD/CEO salary as % of reported net profit	%	0.8%	2.5%	1.4%	1.9%
	Board salary as % of reported net profit	%	1.1%	3.0%	1.7%	2.0%
	Independent directors on the Board	%	43%	43%	43%	43%
	Female directors on the Board	%	43%	43%	43%	29%

Qualitative Parameters (Score: 33)

a) is there an ESG policy in place and whether there is a standalone ESG committee or is it part of a risk committee?

Yes, there is a standalone sustainability committee that is responsible for the formulation and implementation of the group's ESG initiatives. The corporate affairs & legal director oversees this committee and makes quarterly reports to the board on the progress of sustainability initiatives undertaken by the group.

b) is the senior management salary linked to fulfilling ESG targets?

No

c) Does the company follow the task force of climate related disclosures (TCFD) framework for ESG reporting?

Yes

e) Does the company have a mechanism to capture Scope 3 emissions - which parameters are captured?

No

f) What are the 2-3 key carbon mitigation/water/waste management strategies adopted by the company?

The group commits to practise zero production waste to landfill by engaging licensed waste management partners to recycle and upcycle production waste including spent grains, spent yeast, rejected malt etc. and other materials such as cartons, glass and mixed steel scrap. Additionally, Heineken Malaysia invests in various river rehabilitation projects and installation & maintenance of rainwater harvesting systems in order to lower its internal water usage and promote healthier watersheds.

g) Does carbon offset form part of the net zero/carbon neutrality target of the company?

No

Target (Score: 83)

Particulars	**Target**	**Achieved**
Net zero carbon emissions in production by 2030 vs 2018 baseline	0.0%	15.7%
Net zero emissions across the value chain by 2040	0.0%	0.0%
Fully balanced water used in products in water-stressed areas	100%	289%
Treat 100% of wastewater of all breweries	100%	100%
Reduce average water usage to 2.9hl/hl worldwide by 2030	2.90hl/hl	3.65hl/hl
Zero accidents in the workplace	0	1

Impact

NA

*** Peer Comparison**

We have benchmarked HEIM's ESG metrics against that of its closest listed peer with publicly available comparable metrics - Carlsberg Brewery (CAB MK; Buy; TP: MYR28.90). The peer's ESG standing has been assessed separately.

ESG score	Weights	Scores	Final Score
Quantitative	50%	50	25
Qualitative	25%	33	8
Target	25%	83	21
Total			**54**

As per our ESG assessment, Heineken Malaysia has an established framework, internal policies, and tangible mid/long-term targets but needs to provide more details pertaining to its GHG emissions. Heineken Malaysia's overall ESG score is **54**, which makes its ESG rating **above average** in our view (average ESG rating = 50; refer to Appendix I for our ESG Assessment Scoring).

Carlsberg Brewery (M) Bhd

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Risk Rating & Score[1]	18.2 (Low)
Score Momentum[2]	0.0
Last Updated	30 Jul 2021
Controversy Score[3] (Updated: 14 Jun 2022)	2 - Business ethics incidents (accounting & tax)

Business Model & Industry Issues

- CAB's main ESG concern surrounds its high dependency of water throughout its brewing process, especially when climate change, pollution and growing consumption continue to deplete the world's natural water resources.
- With this, CAB has committed to lowering its water and carbon footprint through various water management programmes along with optimisation and upgrades to its plant operations for more efficient use of natural resources.
- CAB stands by its core values in advocating for safe consumption of its products. However, rising incidences of irresponsible drinking has resulted in growing pressure for stricter regulations to be imposed on the brewery industry.
- Key ESG issues are currently being addressed by its global sustainability roadmap in order to lessen its environmental impact (carbon footprint & water conservation) and to ensure safe consumption of its products.
- CAB is a constituent member of the FTSE4GOOD Bursa Malaysia Index.
- **CAB also scored above-average in our proprietary scoring methodology (see next page) with an overall score of 52/100.**

Material E issues

- CAB follows a sustainability roadmap 'Together Towards Zero' with four ambitions, including the reduction of its carbon footprint and water waste. Main targets to be achieved by 2022 are outlined below.
- To lower its carbon emissions by 50% at its brewery and achieve 15% lower carbon footprint throughout its supply chain (eg. raw materials, brewing, packaging, logistics).
- Strive towards more efficient energy usage by using 100% renewable sources to generate power for its breweries through solar power, biomass & biogas, doing away with the usage of coal, and implementing 100% low-climate impact cooling.
- Lowering its water usage by 25% during the brewing process by 2022 and to halve water usage by 2030.
- CAB's water usage has been steadily declining, its total water usage has also lowered to 4.0HL/HL (-18% since 2019).
- CAB is the only brewer that is included in the FTSE4GOOD Bursa Malaysia Index.

Material S issues

- With fatalities on the rise from drink-driving, CAB publicly advocates for responsible drinking through dedicated marketing campaigns (eg. #CelebrateResponsibly).
- In 2022, CAB carry the responsible drink symbol on 100% of its products.
- Targets to provide quality alcohol-free brews in its portfolio by 2022 to offer a wider set of choices for consumers to enjoy on different drinking occasions.
- By 2030, CAB aspires to reach zero lost-time accidents at its plant. In 2021, CAB recorded 1,000 consecutive days without lost-time accidents (2019: 770 days).
- CAB fully sponsors the 'Top Ten Charity Campaign' which is a community project involving charity roadshows to raise funds for the development of Chinese Education and to further promote the local music industry.

Key G metrics and issues

- CAB's board of directors (BOD) comprises of 7 directors - 3 Independent Directors (including the chairman), 3 Non-Independent Non-Executive Directors and the group Managing Director (MD) who is an Executive Director.
- CAB only has 43% independent representation on its board which is below the recommended practise for a majority of independent members. CAB has no plans to revise its board composition for now.
- In 2021, the male:female ratio on the BOD was 71:29. This is slightly below the recommended practise for at least 30% women directors for large companies.
- Independent directors on CAB's audit committee consist of 2 out of 3 members (vs. Industry practise of solely independent directors).
- The chairman and MD positions are held by separate individuals.
- The current MD's remuneration package for 2021 was MYR3.7m (c.1.4% of group pre-tax profit).
- CAB has disclosed the top five senior management remuneration in bands of MYR50,000 but not on a named basis due to confidentiality reasons.
- Messrs PricewaterhouseCoopers PLT has been the group's external auditors since 2017.
- Recurring related party transactions occur in relation to royalty payments, purchase of materials and products, and sales of goods and services. Royalty payments typically account for c.3% of group revenue.

[1]***Risk Rating & Score*** - derived by Sustainalytics and assesses the company's exposure to unmanaged ESG risks. Scores range between 0 - 50 in order of increasing severity with low/high scores & ratings representing negligible/significant risk to the company's enterprise value, respectively, from ESG-driven financial impacts. [2]***Score Momentum*** - indicates changes to the company's score since the last update - a negative integer indicates a company's improving risk score; a positive integer indicates a deterioration. [3]***Controversy Score*** - reported periodically by Sustainalytics in the event of material ESG-related incident(s), with the impact severity scores of these events ranging from Category 0-5 (0 - no reports; 1 - negligible risks; ...; 5 - poses serious risks & indicative of potential structural deficiencies at the company).

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	Quantitative Parameters (Score: 21)					
	Particulars	Unit	2019	2020	2021	HEIM MK (2021)
E	Scope 1 GHG emissions	tCO2e	NA	NA	NA	14,983
	Scope 2 GHG emissions	tCO2e	NA	NA	NA	NA
	Total	tCO2e	**NA**	**NA**	**NA**	**NA**
	Scope 3 (beer-in-hand) emissions	kg CO2e/hl	93.50	NA	NA	NA
	Total	tCO2e	**NA**	**NA**	**NA**	**NA**
	Water usage	hl/hl	4.90	4.80	4.00	3.65
	Share of renewable energy usage %	kWh/hl	NA	NA	NA	NA
	Electricity usage	kWh/hl	10.00	10.20	10.60	10.62
	Total waste generated	tonne	NA	NA	NA	23,834
	Rate of waste recycled	%	NA	NA	NA	100%
S	% of women in workforce	%	NA	NA	25.7%	NA
	% of women in management roles	%	NA	32.0%	35.0%	45.0%
	Consecutive days without lost-time accidents	days	NA	721	1,140	NA
G	MD/CEO salary as % of reported net profit	%	1.6%	1.9%	1.9%	1.4%
	Board salary as % of reported net profit	%	1.7%	2.1%	2.0%	1.7%
	Independent directors on the Board	%	43%	43%	43%	43%
	Female directors on the Board	%	29%	29%	29%	43%

Qualitative Parameters (Score: 67)

a) is there an ESG policy in place and whether there is a standalone ESG committee or is it part of a risk committee?

Yes, it has an established sustainability framework. The management team is responsible for the governance, management, and reporting on the group's sustainability agenda within their respective business functions, led by the managing director and overseen by the board.

b) is the senior management salary linked to fulfilling ESG targets?

No.

c) Does the company follow the task force of climate related disclosures (TCFD) framework for ESG reporting?

Yes

e) Does the company have a mechanism to capture Scope 3 emissions - which parameters are captured?

Yes, beer-in-hand carbon emissions are tracked where the proportion of emissions relating to each stage in the life cycle of products (eg. agriculture & processing, packaging, breweries, transportation & distribution, and cooling) are monitored.

f) What are the 2-3 key carbon mitigation/water/waste management strategies adopted by the company?

In terms of water, reduced water wastage significantly within its water treatment process by upgrading its water treatment plant in 2021. In terms of packaging, Carlsberg Malaysia introduced a new wax emulsion coating on its refillable glass bottles in 2019 which doubles its lifespan. It also switched to Cradle to Cradle certified silver ink on its bottle labels. The silver ink is produced using renewable energy and improved the recyclability of packaging.

g) Does carbon offset form part of the net zero/carbon neutrality target of the company?

No

Target (Score: 100)		
Particulars	**Target**	**Achieved**
Reduce carbon emissions at breweries to zero by 2030 vs 2015 baseline	0%	13.4%
30% reduction in beer-in-hand carbon footprint by 2030 vs 2015 baseline	30%	8.4%
50% reduction in water usage at breweries by 2030 vs 2015 baseline	50%	21%
Zero lost-time accidents (LTA) by 2030 (days)	0	0

Impact

NA

*** Peer Comparison**

We have benchmarked CAB's ESG metrics against that of its closest listed peer with publicly available comparable metrics - Heineken MY (HEIM MK; Buy; TP: MYR29.60). The peer's ESG standing has been assessed separately.

ESG score	Weights	Scores	Final Score
Quantitative	50%	21	11
Qualitative	25%	67	17
Target	25%	100	25
Total			**52**

As per our ESG assessment, Carlsberg Malaysia has an established ESG framework with internal policies for net-zero carbon emission targets in the long-term. The group however falls behind in its governance scoring in relation to recommended practises from the Malaysian Code on Corporate Governance (MCCG). Carlsberg Malaysia's overall ESG score is **52**, which makes its ESG rating **above average** in our view (average ESG rating = 50; refer to Appendix I for our ESG Assessment Scoring).

Nestlé Malaysia Bhd

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Risk Rating & Score[1]	19.3 (low)
Score Momentum[2]	-0.3
Last Updated	25 May 2022
Controversy Score[3] (Updated: 19 Oct 2022)	1 - Operations incidents (emissions)

Business Model & Industry Issues

- NESZ's long-term goal to eliminate its usage of non-recyclable packaging sets an example for its peers to emulate but this could prove to be a costly exercise given that higher demand for recycled flakes may drive its costs above that for virgin plastic materials. Furthermore, upon fully converting to recyclable packaging, more research still needs to be done in order to address the root cause of the global plastic wastage problem as only c.10% of recyclable goods are actually recycled with the remaining c.90% accumulating in landfills or littered in the natural environment.
- There is growing pressure from end-consumers for the F&B industry to adopt sustainable sourcing solutions. To that end, NESZ is a leader in this aspect with a clear framework in place to promote raw material traceability and sustainable farming practices while being socially responsible in uplifting the livelihood of farmers that they work with.
- NESZ's ESG strategy is comparable to its industry peers with formal guidelines to soften its environmental and social impact on society relating to waste management, pollution and product health & safety.
- **NESZ also scores above-average in our proprietary scoring methodology (see next page) with an overall score of 55/100.**

Material E issues

- NESZ has committed to converting all its packaging to recyclable and reusable materials by 2025 and zero environmental impact by 2030. Two-thirds of its total plastic packaging is now designed to be recycled.
- NESZ's goal of reducing plastics was enhanced in 2020 when the company successfully introduced 100% paper straws across their entire UHT range while also redesigning various Nescafe and Milo products for more efficient use of plastics.
- Nespresso launched coffee capsules that use 80% recycled aluminium for its Master Origin Colombia variant in 2020, aiming to fully convert its entire range to recycled aluminium by end-21.
- 100% of the wastewater at its factories is treated to remove 96% of organic load before the water is discharged. NESZ has reduced its water usage per tonne of product by 20% since 2015.
- NESZ is committed to zero deforestation; internally striving towards 100% RSPO certified palm oil by 2023.

Material S issues

- To uphold consumer confidence in the health and safety of its products, an extensive framework was implemented across its supply chain in 2018 under its global Responsible Sourcing Standard (RSS), aligned with standards set forth by the OECD for multinational enterprises and the United Nations' Sustainable Development Goals (SDGs).
- Raw materials are pivotal to product quality. As such, NESZ supports local farmers through rural development programmes, sourcing directly through contract farming initiatives that provide hands-on assistance and training to improve both quantity and quality of crop yields. NESZ has on-going programmes for local growers of chilli, paddy and coffee at present.
- NESZ's staff gender composition comprises of 65% male and 35% female. In 2021, over 51% of leadership positions within the organisation were held by women.

Key G metrics and issues

- In 2021, NESZ's Board comprised of 7 directors, the majority of whom are independent directors - 4 independent directors, 1 non-independent, non-executive director (Chairman) and the group CEO and CFO, both of whom are executive directors.
- The Chairman of the Board and the CEO positions are held by separate individuals.
- 3 out of 7 members of the Board are women, for 43% female representation.
- NESZ's constitution states that one-third of the groups Directors shall retire from the Board by rotation on an annual basis but Directors are allowed to offer themselves for re-election, if eligible.
- Annual shareholders' approval is required for independent directors serving beyond 9 years. At the moment, no Directors have served as Independent Directors beyond 12 years.
- The governance, nomination and compensation committee is led by the Chairman of NESZ, deviating from industry norms of having an independent director chairing the committee.
- The group CEO's total remuneration package (MYR5.6m) represents 0.7% of NESZ's reported group pre-tax profit in 2021.
- NESZ's is audited by KPMG PLT. To ensure the independence of external auditors, the groups audit committee requires that its lead audit partner is rotated once every 7 years.
- NESZ enters into recurring related party transactions (RPT) mostly involving purchases of raw materials, semi-finished and finished food products from other Nestle affiliated companies globally. Other recurring RPT's include those involved in payment of royalties for the usage of trademarks of food products, and payments for shared services in IT.

[1]***Risk Rating & Score*** - derived by Sustainalytics and assesses the company's exposure to unmanaged ESG risks. Scores range between 0 - 50 in order of increasing severity with low/high scores & ratings representing negligible/significant risk to the company's enterprise value, respectively, from ESG-driven financial impacts. [2]***Score Momentum*** - indicates changes to the company's score since the last update - a negative integer indicates a company's improving risk score; a positive integer indicates a deterioration. [3]***Controversy Score*** - reported periodically by Sustainalytics in the event of material ESG-related incident(s), with the impact severity scores of these events ranging from Category 0-5 (0 - no reports; 1 - negligible risks; ...; 5 - poses serious risks & indicative of potential structural deficiencies at the company).

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Quantitative Parameters (Score: 26)						
	Particulars	Unit	2019	2020	2021	* FNH MK
E	Scope 1 GHG emissions	tCO2e	57,387	55,542	60,068	38,089
	Scope 2 GHG emissions	tCO2e	83,373	83,885	86,044	38,808
	Total	**tCO2e**	**140,760**	**139,427**	**146,112**	**76,897**
	Scope 3 GHG emissions	tCO2e	12,669	13,564	11,489	NA
	Total	**tCO2e**	**153,429**	**152,991**	**157,601**	**76,897**
	GHG intensity (Scope 1, 2 and 3)	kgCO2e/tonne	378	394	409	NA
	Total energy consumption per tonne	GJ/tonne	3.17	3.31	3.47	NA
	Total renewable fuel consumption usage	%	1%	3%	3%	NA
	% of packaging that is recyclable and reusable	%	67%	67%	74%	97%
	Total waste generated	tonne	19,313	23,398	27,158	11,997
S	% of women in workforce	%	36%	35%	35%	31.0%
	% of women in management roles	%	61.0%	52.0%	51.0%	44.0%
	Lost time injury frequency (LTIF) rate	number	1	2	1	0
	No. of students involved in Nestle for healthier kids program	number	30,631	5,337	24,986	NA
	No. of products certified with healthier choice logo	number	0	23	36	69
G	MD/CEO salary as % of reported net profit	%	0.58%	0.80%	0.99%	NA
	Board salary as % of reported net profit	%	1.03%	1.45%	1.65%	0.3%
	Independent directors on the Board	%	57%	57%	57%	55%
	Female directors on the Board	%	21%	43%	43%	27%

Qualitative Parameters (Score: 67)

a) Is there an ESG policy in place and whether there is a standalone ESG committee or is it part of a risk committee?

Yes - it has established a dedicated sustainability committee which is led by the Board of directors in order to reflect the group's global sustainability aspirations into its governance structure.

b) Is the senior management salary linked to fulfilling ESG targets?

No.

c) Does the company follow the task force of climate-related disclosures (TCFD) framework for ESG reporting?

Yes.

e) Does the company have a mechanism to capture Scope 3 emissions - which parameters are captured?

Yes - indirect emission data from salespeople travel, long-term business partners' travel is included into the calculations for Scope 3 emissions.

f) What are the 2-3 key carbon mitigation/water/waste management strategies adopted by the company?

To reduce plastic waste, 74% of the plastics used in Nestle Malaysia's packaging are designed for recycling. The group has also identified several types of plastic materials to avoid using in new product packaging (or phase out in existing packaging) eg. plastic straws, polystyrene, polyvinyl chloride (PVC) etc.. All operations in Malaysia, from its factories to distribution centers have transitioned to 100% renewable electricity since Jan 2022 through the Green Energy Tariff programme.

g) Does carbon offset form part of the net zero/carbon neutrality target of the company?

No.

Target (Score: 100)		
Particulars	**Target**	**Achieved**
Halve GHG emissions by 2030 vs. 2018	50%	NA
Achieve net zero emissions by 2050	0.0	NA
Reduce specific GHG emissions by 5% p.a.	5%	NA
100% RSPO-certified sustainable palm oil by 2030	100%	70%
100% assessed deforestation-free by end of 2022	100%	91%
100% of packaging to be recyclable and reusable by 2025	100%	74%
Reduce virgin plastic in packaging by a third by 2025	33%	NA
Achieve plastic neutrality by 2025	100%	NA
100% renewable electricity at all group sites by 2025	100%	100%

Impact

NA

*** Peer Comparison**

We have benchmarked NESZ's ESG metrics against that of its closest listed peer with publicly available comparable metrics - Fraser & Neave (FNH MK; Not Rated). The peer's ESG standing is not assessed and solely exists as a point of reference.

ESG score	Weights	Scores	Final Score
Quantitative	50%	26	13
Qualitative	25%	67	17
Target	25%	100	25
Total			**55**

As per our ESG assessment, NESZ has a dedicated sustainability framework with long-term targets towards carbon neutrality but needs to make headway in improving its quantitative "E" metrics. NESZ's overall ESG score is **55**, which makes its ESG rating above average in our view (average ESG rating = 50; refer to Appendix I for our ESG Assessment Scoring).

GAMING

Genting Malaysia Bhd

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Risk Rating & Score[1]	27.7 (Medium)
Score Momentum[2]	+1.3
Last Updated	23 Dec 2021
Controversy Score[3] (Updated: 15 Jun 2022)	1- Governance Incidents (Corporate Governance)

Business Model & Industry Issues

- GENM's Resorts World Genting (RWG) has always been the 'cash cow' of the group. With the cash flows generated by RWG, GENM has attempted to expand beyond Malaysia.
- Resorts World New York City (RWNYC) is a successful green-field investment. That said, GENM has not been averse to employing related party transactions (RPT) to expand (e.g. acquisition of Genting UK (GENUK) and Empire Resorts.
- To be fair, not all RPTs were negative for minority shareholders. The acquisition of GENUK turned out to be more positive than we expected and we viewed the disposal of 17% of Genting Hong Kong (GENHK) positively.
- Yet, the recurrence of RPTs continues to raise eyebrows with the latest being the acquisition of 49% of loss generating Empire Resorts. On another note, GENM has been a lot more progressive with dividends.
- **GENM also scores average in our proprietary scoring methodology (see next page) with an overall score of 51/100.**

Material E issues

- RWG sits at the peak of Mount Ulu Kali. Thus, it is not served by municipal or national sewerage companies
- Although RWG recently increased its gross floor area by ~50%, 94% of its ~10k acre virgin rainforest remains intact.
- RWG has 8 pumping stations which extract raw water from Sungai Cherok to 10 water treatment plants.
- RWG consumed a reduced 4.0m m3 (-12% YoY) of water in 2021 due to it being shut for 5 months (2020: 3 months).
- Yet, water consumed/visitor grew to 0.57 m3 (+58% YoY) in 2021.
- Invested in a new cable car system called Awana Skyway that can carry 3.6k pax/hour. It opened in 2016.
- Awana Skyway has not only reduced traffic congestion and pollution but also traffic accidents at RWG.
- RWG phased out plastic straws and replaced food boxes with biodegradable and compostable food containers.

Material S issues

- Access to RWG casino is denied to persons below the age of 21 and Malaysian Muslims.
- Bank Negara Malaysia precludes RWG from extending credit to gamblers.
- RWG has a 24 hour Responsible Gaming Hotline and Self Exclusion Programme (SEP).
- GENUK and RWNYC have similar responsible gaming initiatives and SEPs.
- RWG promotes Request For Assistance programme to problem gamblers.
- In 2020, GENUK was awarded AML Team of the Year Award by Gambling Compliance Global Regulatory Awards.
- GENUK also accorded GamCare's Safer Gambling Standard (Level 3) by Safer Gambling Standard Great Britain.
- GENUK contributes 0.1% of gross gaming revenue (GGR) to responsible gaming causes.
- RWNYC is required to contribute 44% of GGR to the New York State education fund as a form of gaming tax.
- Women account for 40% of GENM's workforce. The ratio of total remuneration for women and men is equal at 1:1.
- RWG operates 11 residential staff complexes with 9,844 rooms that can accommodate 22,488 staff.

Key G metrics and issues

- BOD comprises Deputy Chairman & Chief Executive, President, Deputy Chief Executive and 8 Independent Non-Executive Directors (INED).
- Tan Sri Lim Kok Thay (TSLKT), Deputy Chairman & Chief Executive and Mr. Lim Keong Hui, Deputy Chief Executive represent Genting Bhd.
- Mr. Lim Keong Hui, Deputy Chief Executive is a son of TSLKT, Deputy Chairman & Chief Executive.
- Madam Chong Kwai Ying, INED and Dato' Dr. Lee Bee Phang, INED are women directors.
- Directors still received remuneration of MYR56.9m (-24% YoY) in FY21 despite GENM incurring losses.
- Only one of the RWG key management personnel is a woman, the Chief Financial Officer.
- PricewaterhouseCoopers LLP is the independent auditor. They have been appointed for >10 years.
- GENM has a history of related party transactions. Last major related party transaction was in 2019.
- Then, GENM acquired 49% of Empire Resorts from Kien Huat Realty III, linked to TSLKT for MYR661.1m.
- Empire Resorts has been generating losses since opening in Feb 2018.
- In 2019, GENM acquired the super yacht, Equanimity from the Malaysian government.
- In 2016, GENM sold 17% of GENHK to Golden Hope, linked to TSLKT for USD415m.
- That said, GENHK was not declaring many dividends and its share price has fallen since the disposal.
- To be sure, GENM had invested >USD750m and impaired >MYR2.0b of its investment in GENHK since 1998.
- In 2010, GENM acquired GENUK from Genting Singapore for GBP340m.
- GENM acquired GENUK at valuation multiples that were higher than its own.
- That said, GENUK EBITDA grew from GBP30.2m in FY09 to a high of GBP50m in FY16.
- In 2008, GENM acquired 10% of Walker Digital Gaming from KH Digital, linked to TSLKT for USD69m.
- GENM's investment in Walker Digital Gaming has since been partially impaired.

[1]*Risk Rating & Score* - derived by Sustainalytics and assesses the company's exposure to unmanaged ESG risks. Scores range between 0 - 50 in order of increasing severity with low/high scores & ratings representing negligible/significant risk to the company's enterprise value, respectively, from ESG-driven financial impacts. [2]*Score Momentum* - indicates changes to the company's score since the last update - a negative integer indicates a company's improving risk score; a positive integer indicates a deterioration. [3]*Controversy Score* - reported periodically by Sustainalytics in the event of material ESG-related incident(s), with the impact severity scores of these events ranging from Category 0-5 (0 - no reports; 1 - negligible risks; ...; 5 - poses serious risks & indicative of potential structural deficiencies at the company).

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	Quantitative Parameters (Score: 36)					
	Particulars	**Unit**	**2019**	**2020**	**2021**	**LVS US (2021)**
E	Scope 1 emissions	tCO2e	44,525	49,080*	40,058*	60,878
	Scope 2 emissions	tCO2e	196,149	218,061*	225,855*	547,990
	Total	**tCO2e**	**240,674**	**267,141***	**265,913***	**608,868**
	Scope 3 emissions	tCO2e	N/A	N/A	N/A	299,062
	Total	**tCO2e**	**240,674**	**267,141***	**265,913***	**907,930**
	Scope 1 & 2 emissions intensity - RWG	tCO2e/m2	0.09	0.07*	0.09*	0.14
	Energy consumption intensity - RWG	GJ/m2	0.53	0.51*	0.54*	1.02
	Water consumption intensity - RWG	m3/m2	3.29	2.54*	2.87*	0.37
S	% of women in workforce	%	39%	39%	40%	50%
	% of local suppliers - RWG	%	88%	90%	88%	77%
	Employee attrition rate	%	N/A	39.4%	27.4%	14.6%
	Road accidents per 10,000 vehicles - RWG	number	0.24	0.18	0.18	N/A
G	Board salary as % of reported net profit	%	7%	N/M	N/M	N/M
	Independent directors on the Board	%	70%	70%	73%	64%
	Female directors on the Board	%	10%	10%	18%	27%
	Distribution to shareholders	% of net profit	81%	N/M	N/M	0%
	Investment in loss generating related companies	MYRm	682.7	724.2	774.2	N/A

Qualitative Parameters (Score: 33)

a) is there an ESG policy in place and whether there is a standalone ESG committee or is it part of a risk committee?
Yes. GENM has an ESG policy. It also has a Sustainability Steering Committee and Sustainability Working Committee (in order of hierarchy). The Sustainability Steering Committee reports to the Board Of Directors.

b) is the senior management salary linked to fulfilling ESG targets?
Yes.

c) Does the company follow the task force of climate related disclosures (TCFD) framework for ESG reporting?
Yes.

e) Does the company have a mechanism to capture Scope 3 emissions - which parameters are captured?
No.

f) What are the 2-3 key carbon mitigation/water/waste management strategies adopted by the company?
Installing LED bulbs, upgrading water pumps, upgrading hot water heating systems (water heater and heat pump), upgrading compressor systems to reduce air leakages, installing rainwater harvesters, replacing single-use toiletry bottles in guest room showers with bigger and pump-topped bottles, installing recycling bins (guests who recycle can collect points that can be redeemed as theme park tickets) and recycle cooking oil.

g) Does carbon offset form part of the net zero/carbon neutrality target of the company?
No.

Target (Score: 100)

Particulars	Target	Achieved
Reduce energy consumption by 1% p.a. till 2023 at RWG (2018 as base year)	3%	4%*
Install 4 rainwater harvesters at RWG by 2023	4	2

Impact

NA

*** Peer Comparison**

We have benchmarked GENM's ESG metrics against that of its closest listed peer with publicly available comparable metrics - Las Vegas Sands (LVS US; Not Rated). The peer's ESG standing is not assessed and solely exists as a point of reference.

ESG score	Weights	Scores	Final Score
Quantitative	50%	36	18
Qualitative	25%	33	8
Target	25%	100	25
Total			**51**

** denotes annualised figures*

As per our ESG assessment, GENM has an established framework, internal policies, and tangible mid/long-term targets but needs to make headway in capturing Scope 3 emissions. GENM's overall ESG score is **51**, which makes its ESG rating **average** in our view (average ESG rating = 50; refer to Appendix I for our ESG Assessment Scoring).

Genting Bhd

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Risk Rating & Score[1]	27.0 (Medium)
Score Momentum[2]	-0.1
Last Updated	10 Sep 2022
Controversy Score[3] (Updated: 13 Oct 2022)	3 - Operations Incidents (Land Use and Biodiversity)

Business Model & Industry Issues

- In our view, it is business as usual for Resorts World Genting (RWG) but GENS' Resorts World Sentosa (RWS) operates in the most highly regulated casino jurisdiction in the world which puts it at a disadvantage vis-à-vis its regional competitors.
- GENP will likely have to redirect its efforts to raising palm oil yields rather than growing its land bank due to anti-palm oil campaigns. It will also need to focus on achieving group-wide Roundtable on Sustainable Palm Oil (RSPO) certification.
- Genting Energy's net capacity will likely be still fossil fuel-focused due to the abundance of coal in Indonesia. That said, GENP and Genting Energy are addressing environmental issues via certifications and technology.
- Main risk to GENT's profitability and ESG credentials continues to be the recurrence of RPTs by GENM with the latest being the acquisition of 49% of loss generating Empire Resorts and increasingly stricter regulations being imposed on RWS.
- GENT is also an active investor in life sciences (GT Diagnostics, TauRx, DNAe, Celularity) which could pay off handsomely one day.
- **GENT also scores below-average in our proprietary scoring methodology (see next page) with an overall score of 46/100.**

Material E issues

- Although RWG recently increased its gross floor area by ~50%, 94% of its ~10k acre virgin rainforest remains intact.
- RWG phased out plastic straws and replaced food boxes with biodegradable and compostable food containers.
- RWS houses 2.9 ha of protected secondary forest and >100,000 marine animals in the S.E.A. Aquarium.
- RWS phased out plastic straws/bottles in 2018/2019, saving 3m straws and 6.7m plastic bottles p.a.
- Only 5% of Genting Energy's net capacity of 1,872MW is fuelled by renewable sources (i.e. Jangi wind farm).
- Latest 55%-owned 660MW coal-fired Banten power plant is more fuel efficient due to supercritical boiler technology.
- GENP has had a 'zero burning policy' with regards to developing oil palm plantation land since the 1990s.
- GENP also has a 'No Deforestation, No Peat and No Exploitation' policy.
- Currently, 19 of 32 estates, 7 of 12 mills, 1 refinery and 2 biodiesel plant owned by GENP are RSPO certified.

Material S issues

- Bank Negara precludes RWG from extending credit to gamblers.
- GENUK accorded GamCare's Safer Gambling Standard (Level 3) by Safer Gambling Standard Great Britain.
- SCPR gamblers required to pay entry levies of SGD150 per 24 hours/SGD3,000 p.a. to enter RWS casino.
- Problem gambling at RWS regulated by the National Council on Problem Gambling.
- RWS is the first casino in Asia Pacific to receive RG Check accreditation from the Responsible Gambling Council.
- In Dec 2018, RWS attained RG Check reaccreditation and achieved the highest score amongst >150 venues.
- GENT employed ~47k people globally in 2021. The male to female employee ratio was 67%:33%.
- GENT invests in life sciences and sponsors the Dementia Care Centre in collaboration with University of Malaya.

Key G metrics and issues

- BOD comprises Chairman & Chief Executive, Deputy Chief Executive, President & Chief Operating Officer and 5 Independent Non-Executive Directors (INED).
- Tan Sri Lim Kok Thay (TSLKT), Chairman & Chief Executive and Mr. Lim Keong Hui, Deputy Chief Executive represent the Lim family.
- Mr. Lim Keong Hui, Deputy Chief Executive is a son of TSLKT, Chairman & Chief Executive.
- Madam Koid Swee Lian, INED is the sole woman director on the BOD.
- FY21 directors' remuneration still substantial at MYR122m (-31% YoY) even though GENT generated a loss in FY21.
- 2 key management personnel are women, the Chief Financial Officer and Senior Vice President – Legal.
- PricewaterhouseCoopers LLP is the independent auditor. They have been appointed for >10 years.
- GENM has a history of RPTs. The last major RPT was in 2019.
- Then, GENM acquired 49% of Empire Resorts from Kien Huat Realty III, linked to TSLKT for MYR661.1m.
- Empire Resorts has been generating losses since opening in Feb 2018.
- In 2016, GENM sold 17% of GENHK to Golden Hope, linked to TSLKT for USD415m.
- GENM had invested >USD750m and impaired >MYR2.0b of its investment in GENHK since 1998.
- In 2008, GENM acquired 10% of Walker Digital Gaming from KH Digital, linked to TSLKT for USD69m.
- RWS occasionally fined by the Casino Regulatory Authority. They were for minor infractions, in our view.
- Most fines were for SCPRs entering/remaining in the casino without valid casino entry levies
- RWS governed by the Casino Control Act (CCA) which contains anti money laundering regulations.
- CCA does not permit Macau style junkets which have often been accused of money laundering.
- RWS also developed and employs a Prevention Of Money Laundering and Terrorism Financing Framework.

[1]***Risk Rating & Score*** - derived by Sustainalytics and assesses the company's exposure to unmanaged ESG risks. Scores range between 0 - 50 in order of increasing severity with low/high scores & ratings representing negligible/significant risk to the company's enterprise value, respectively, from ESG-driven financial impacts. [2]***Score Momentum*** - indicates changes to the company's score since the last update - a negative integer indicates a company's improving risk score; a positive integer indicates a deterioration. [3]***Controversy Score*** - reported periodically by Sustainalytics in the event of material ESG-related incident(s), with the impact severity scores of these events ranging from Category 0-5 (0 - no reports; 1 - negligible risks; ...; 5 - poses serious risks & indicative of potential structural deficiencies at the company).

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	Quantitative Parameters (Score: 15)					
	Particulars	Unit	2019	2020	2021	LVS US (2021)
E	Scope 1 emissions	tCO2e	4,094,030	4,105,050	4,245,558	60,878
	Scope 2 emissions	tCO2e	299,070	235,545	266,313	547,990
	Total	**tCO2e**	**4,393,100**	**4,340,595**	**4,511,871**	**608,868**
	Energy consumption	TJ	46,816.8	45,986.2	47,092.3	4,594.8
	Water consumption	m m3	908.0	988.0	854.5	1.7
S	% of women in workforce	%	32%	33%	33%	50%
	Investment in community projects as % of EBITDA	% of EBITDA	N/A	N/A	0.4%	1.0%
	% of local suppliers	%	N/A	N/A	93%	77%
	Employee attrition rate	%	N/A	N/A	17%	15%
G	Board salary as % of EBITDA	% of EBITDA	2%	6%	3%	7%
	Independent directors on the Board	%	63%	63%	63%	64%
	Female directors on the Board	%	13%	13%	13%	27%
	Distribution to shareholders	% of net profit	39%	N/M	N/M	0%
	Investment in loss generating related companies	MYRm	682.7	724.2	774.2	N/A

Qualitative Parameters (Score: 67)

a) is there an ESG policy in place and whether there is a standalone ESG committee or is it part of a risk committee?

GENT has an ESG policy but it does not have a standalone ESG Committee. It has Sustainability Working Teams from Genting Singapore (GENS), Genting Malaysia (GENM), Genting Plantations (GENP), Genting Energy and Resorts World Las Vegas reporting to the GENT Executive Committee. The GENT Executive Committee does conduct meetings which deliberate on ESG matters alone.

b) is the senior management salary linked to fulfilling ESG targets?

Yes.

c) Does the company follow the task force of climate related disclosures (TCFD) framework for ESG reporting?

Yes.

e) Does the company have a mechanism to capture Scope 3 emissions - which parameters are captured?

Yes but not for all major subsidiaries. Only GENS and GENP capture Scope 3 emissions.

f) What are the 2-3 key carbon mitigation/water/waste management strategies adopted by the company?

GENS has installed solar panels that generate 615,732kWh p.a. and 32,000m3 lagoon that harvests rainwater. It also has plans to quadruple number of solar panels. GENM is upgrading water pumps, upgrading hot water heating systems (water heater and heat pump), upgrading compressor systems to reduce air leakages and installing rainwater harvesters.

g) Does carbon offset form part of the net zero/carbon neutrality target of the company?

Yes. Developing nature-based carbon offset strategy. Benchmarking and sourcing of carbon offset standards and sources ongoing.

Target (Score: 86)

Particulars	Target	Achieved
GENS - Reduce carbon emission intensity by 30% by 2030 (2015 as baseline year)	30%	35%
GENS - Reduce waste to landfill by 50% by 2030 (2015 as baseline year and ex-construction waste)	50%	21%
GENS - 100% electric transportation by 2030	100%	N/A
GENS - >500,000 hours in cumulative volunteer hours by 2030	500,000	469,688
GENM - Reduce energy consumption by 1% p.a. till 2023 at RWG (2018 as base year)	3%	4%
GENP- 'no forced labour' and 'no child labour' in its entire supply value chain by 2025	0%	N/A
Carbon neutral	N/A	N/A

Impact

NA

*** Peer Comparison**

We have benchmarked GENM's ESG metrics against that of its closest listed peer with publicly available comparable metrics - Las Vegas Sands (LVS US; Not Rated). The peer's ESG standing is not assessed and solely exists as a point of reference.

ESG score	Weights	Scores	Final Score
Quantitative	50%	15	8
Qualitative	25%	67	17
Target	25%	86	21
Total			**46**

As per our ESG assessment, GENT has an established framework, internal policies, and tangible mid/long-term targets but needs to make headway promoting women to its BOD, capturing Scope 3 emissions as a group and setting carbon neutral targets for the group. GENT's overall ESG score is **46**, which makes its ESG rating slightly **below average** in our view (average ESG rating = 50; refer to Appendix I for our ESG Assessment Scoring).

GLOVES

Top Glove Corp Bhd

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Risk Rating & Score[1]	22.8 (Medium)
Score Momentum[2]	-3.3
Last Updated	23 Jun 2022
Controversy Score[3] (Updated: 01 Jun 2022)	4 - Employee incidents (human rights)

Business Model & Industry Issues

- Top Glove has retained its inclusion on Dow Jones Sustainability Indices (DJSI) for four consecutive years, and is ranked top 3% (as at 21 Oct 2022) in the Healthcare Equipment & Supplies industry. It also ranked top 16% amongst the healthcare sector on the FTSE Russell ESG Ratings. Further, it is also the 1st Malaysian glove maker to be included in the 2022 Bloomberg Gender Equality Index.
- In July 2020, the US CBP banned products made by two of Top Glove's subsidiaries, Top Glove S/B and TG Medical S/B on indicative evidence of forced labour practices, including debt bondage, excessive overtime, abusive working and living conditions, and retention of identity documents. However, on 10 Sep 2021, US CBP modified the Finding (lifted the ban) on Top Glove and the company has been allowed to resume exporting its products to the US.
- However, In view of the current oversupply situation, Top Glove is no longer able to pass on related rising social compliance cost.
- **Top Glove scores below-average in our proprietary scoring methodology (see next page) with an overall score of 47/100.**

Material E issues

- Targets to reduce electricity consumption intensity by 10% to 7.76kWh/k pcs gloves by FY25 (from FY22). Solar power system implemented at 8 factories with capacity of 5.34 MWp as at FY22.
- Targets to reduce carbon emission intensity by 10% to 0.0176 MT/k pcs gloves by FY25 (from FY22).
- Targets to reduce natural gas consumption by 10% by FY25 (from FY22) to 0.279 MMBtu/k pcs gloves.
- Targets to reduce municipal water consumption intensity by 34% to 0.151 cu.m/k pcs gloves by FY25 (from FY21). Has a Reverse Osmosis Water Treatment Plant which treats wastewater discharged from the surrounding factories and channels the treated water back to the factories. Every factory is also equipped with on-site wastewater recycling facilities.
- Targets to reduce generation of scheduled waste by 13% by FY25 to 0.14kg/k pcs gloves (from FY21). Complies with Malaysia's Department of Environment's effluent management requirements.

Material S issues

- Since Jan 2019, Top Glove implemented a Zero Cost Recruitment Policy to ensure that its migrant workers are not charged recruitment fees and are not in debt bondage.
- Regular hostel inspection is conducted twice a month and any non-compliance is immediately rectified. Investing e. MYR232m to improve accommodation for 11,404 employees, with two of the planned hostels (MYR111m capex; 2,716 pax capacity) expected to be ready by end-2022.
- In FY22, Top Glove conducted 59 social compliance audits on SMETA, BSCI and Customer Code of Conduct. 75% of its factories audited achieved "A" rating under Amfori Business Social Complaince Initiatives (BSCI)(target: 100%) while 96% factories audited achieved not more than 10 Non-compliance (NCs)/factory under Sedex Member Ethical Trade Audit (SMETA) (target: 90%).
- Of its 19,066 workforce in FY22, 31%/50% of Top Glove's employees are female/in leadership positions.

Key G metrics and issues

- The current board consists of 12 members, out of which, 7 members (or 58% of board, minimum requirement is 50%) are Independent Non-Executive Directors (INEDs).
- In FY8/22, female representation on the Board was 36% (FY21: 42%; minimum requirement is 30%).
- As at Nov 2022, Tan Sri Lim Wee Chai's family, the largest substantial shareholder, holds c. 36% stake in Top Glove and has 2 board seats (or 17% of board representation).
- Total directors' remuneration is 5.4% of FY8/22 group net profit (FY21: 0.1%).
- Ernst & Young has been Top Glove's external auditor for more than 15 years.
- Its nomination and remuneration committee is made up of 4 INEDs.
- It has an audit committee made up of 3 INEDs.
- It also has a risk and investment committee with 2 executive directors, 1 NINED and 6 INEDs.
- The company has a Whistleblowing Policy in place since 2010.
- In 2017, Top Glove acquired two small glove factories (A1 Glove Sdn Bhd and Titi Glove Sdn Bhd) for MYR39m cash. The acquisitions were deemed related party because both vendors were mainly owned by Dato' Lim Kwee Fatt, the brother of Tan Sri Lim Wee Chai. The acquisition price was fair given the one year forward P/E of c.10x (below Top Glove's 18x then) and also below the independent valuer's ascertained market value of MYR61m.

[1]***Risk Rating & Score*** - derived by Sustainalytics and assesses the company's exposure to unmanaged ESG risks. Scores range between 0 - 50 in order of increasing severity with low/high scores & ratings representing negligible/significant risk to the company's enterprise value, respectively, from ESG-driven financial impacts. [2]***Score Momentum*** - indicates changes to the company's score since the last update - a negative integer indicates a company's improving risk score; a positive integer indicates a deterioration. [3]***Controversy Score*** - reported periodically by Sustainalytics in the event of material ESG-related incident(s), with the impact severity scores of these events ranging from Category 0-5 (0 - no reports; 1 - negligible risks; ...; 5 - poses serious risks & indicative of potential structural deficiencies at the company).

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	Quantitative Parameters (Score: 11)					
	Particulars	Unit	FY8/20	FY8/21	FY8/22	* HART MK (FY22)
E	Scope 1 emissions	tCO2e	834,371	869,646	666,458	521,681
	Scope 2 emissions	tCO2e	296,600	315,311	261,962	136,705
	Total	**tCO2e**	**1,130,971**	**1,184,956**	**928,420**	**658,386**
	Scope 3 emissions	tCO2e	192.5	0.2	21,907.6	NA
	Total	**tCO2e**	**1,131,163.0**	**1,184,956.5**	**950,327.4**	**NA**
	GHG intensity (Scope 1 and 2)	tCO2e/rev RMm	156.3	72.4	166.6	83.5
	Electricity consumption intensity	kWh/1,000 pcs gloves	6.83	6.94	8.62	8.12
	Water consumption intensity	cu. M/1,000 pcs gloves	0.28	0.29	0.36	0.17
	Natural gas consumption intensity	MMBTU/1,000 pcs gloves	0.29	0.29	0.31	0.34
	Carbon emission intensity	tCO2/1,000 pcs gloves	0.0166	0.0167	0.0195	0.023
	Total waste generated intensity	kg/1,000 pcs gloves	NA	0.16	0.15	0.51
	Non-hazardous waste recycled	%	NA	66.7	68.4	70.6
S	% of women in workforce	%	29	31	31	37
	% of women in management roles	%	53	52.0	50.0	33.3
	Proportion of locals as new hires	% (avg)	81	85	93	99
	Lost time injury frequency (LTIF) rate	Number (avg)	1.10	0.92	0.86	0.53
	Lives impacted by CSR outreach (‘000)	number	58.9	63.2	55.5	43.2
G	MD/CEO salary as % of reported net profit	%	NA	NA	NA	0.1
	Board salary as % of reported net profit	%	0.5	0.1	5.4	0.3
	Independent directors on the Board	%	58	58	58	56
	Female directors on the Board	%	42	42	36	33

Qualitative Parameters (Score: 67)

a) Is there an ESG policy in place and whether there is a standalone ESG committee or is it part of a risk committee?

Yes. The Board is supported by the Board Sustainability Committee (BSC) which was established in March 2019. The BSC comprises four independent directors and is chaired by a Senior Independent Director.

b) Is the senior management salary linked to fulfilling ESG targets?

Yes. 40% of management incentives/ remuneration pay linked to ESG metrics.

c) Is the company a signatory of or adheres to the UN Global Compact (UNGC) Initiative and has adopted TCFD reporting?

Yes.

e) Any major controversies that the company is involved in which has impacted its reputation?

Yes. In July 2020, the US CBP banned products made by two of Top Glove's subsidiaries, Top Glove S/B and TG Medical S/B on evidence of forced labour practices, including debt bondage, excessive overtime, abusive working and living conditions, and retention of identity documents. However, on 10 Sep 2021, US CBP modified the Finding (lifted the ban) on Top Glove and it is allowed to resume exporting its products to US.

f) What are the 2-3 key carbon mitigation/water/waste management strategies adopted by the company?

Energy efficiency: Replacing inefficient burners with advanced technology equipment, use of energy saving former and improve oven design as well as solar power projects. Water mgmt: Two in-house water treatment plants to treat surface water into clean water that benefit 19 factories. Waste mgmt: Innovate more green products and adopt circular economy to recover nitrile waste into new product such as rubber gasket, rubber sealant etc.

g) Does carbon offset form part of the net zero/carbon neutrality target of the company?

Yes. Carbon emission avoidance through tree planting and rubber reclaiming projects.

Target (Score: 100)

Particulars	Target	Achieved
Reduce carbon emission intensity by 10% by 2025	0.0176/k pcs	0.020
Reduce electricity consumption intensity by 10% by 2025	7.76 kWh/k pcs	8.62
Reduce municipal water consumption intensity by 34% by 2025	0.151 cu.M/k pcs	0.22
Reduce scheduled waste intensity by 13% by 2025	0.140kg/k pcs	0.15
Divert disposal of scheduled waste from licensed landfill by 74% FY2021 as baseline	74%	68%
Achieve ISO 45001 Occupational Health & safety Management System certification for all factories	100%	14%

Impact

NA

*** Peer Comparison**

We have benchmarked TOPG’s ESG metrics against that of its closest listed peer with publicly available comparable metrics – Hartalega (HART MK; Sell; TP: MYR1.43). The peer’s ESG standing has been assessed separately.

ESG score	Weights	Scores	Final Score
Quantitative	50%	11	5
Qualitative	25%	67	17
Target	25%	100	25
Total			**47**

As per our ESG assessment, TOPG has an established framework, internal policies, and tangible mid/long-term targets but needs to make headway in improving its quantitative "E" metrics YoY. TOPG’s overall ESG score is **47**, which makes its ESG rating **below average** in our view (average ESG rating = 50; refer to Appendix I for our ESG Assessment Scoring).

Hartalega Bhd

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Risk Rating & Score[1]	17.1 (Low)
Score Momentum[2]	-0.6
Last Updated	20 Oct 2022
Controversy Score[3] (Updated: 20 Jul 2021)	3 - Employee incidents (human rights)

Business Model & Industry Issues

- Hartalega has continued to retain its SEDEX membership and remains a constituent of FTSE4Good Bursa Malaysia. Social compliance audits are regularly conducted by its internal team as well as external parties, based on the Business Social Compliance Initiative (BSCI), SEDEX Members Ethical Trade Audits (SMETA), Worldwide Responsible Accredited Production (WRAP) and Ethical Trading Initiative (ETI) Base Code.
- Similar to the other glove players, Hartalega relies heavily on migrant workers for the production of its gloves. Given the ever-changing regulations and standards on workers' welfare, the industry faces rising social compliance cost. Given the current oversupply situation, the glove-makers will not be able to pass on the higher compliance cost.
- ESG risks related to migrant workers should be declining on a yearly basis as it invests in automation to improve efficiency and reduce dependency on manual labour. Hartalega's longer-term vision is for fully "humanless" factories.
- **Hartalega scores above-average in our proprietary scoring methodology (see next page) with an overall score of 61/100**.

Material E issues

- To reduce consumption of energy and water, Hartalega deploys a high level of automation at its plants and also taps alternative energy sources (i.e. cogeneration and biomass power plants).
- Hartalega manages hazardous or scheduled waste in accordance with the DOE's Scheduled Wastes Regulations 2005 (Environmental Quality Act 1974). It also engages licensed contractors approved by the DOE to manage all hazardous waste or scheduled waste disposal. Waste being recycled increased by 7% while Hartalega also managed to reduce total landfill disposal by 18% in FY22.
- Additionally, its state-of-the-art water treatment plants allow for 100% self-treated water. For effluent water discharge, Hartalega maintains its Standard A rating, which is the highest benchmark determined by the Department of Environment (DOE).
- In FY22, Hartalega recorded zero incidents of non-compliance with environmental laws and regulations. It has also retained ISO 14001:2015 certification for its Bestari Jaya facility.

Material S issues

- Hartalega reviews its Health, Safety and Environment (HSE) Policy regularly. Its' HSE committee carries out monthly internal audits, alongside an external audit conducted by DOSH on a yearly basis.
- In FY22, Hartallega continued to maintain its track record of Grade A for both its Bestari Jaya and NGC facilities for Occupational Safety and Health workplace assessment (OSHWA) under DOSH.
- All its customer and social compliance audits are benchmarked against local and international standards such as the amfori Business Social Compliance Initiative (BSCI) and SEDEX Members Ethical Trade Audits (SMETA).
- Hartalega has implemented Zero Cost Recruitment Policy since 2019, which ensures that its migrant workers are not required to pay recruitment fees to agencies/third parties during the recruitment process. All workers are informed of the Zero Cost Recruitment Policy prior to departure from their home countries.
- Overtime hours are paid at rates in accordance with the Malaysia Employment Act. All foreign workers are entitled to receive annual increments and bonuses (average 2.25 months in FY22).

Key G metrics and issues

- The current board consists of 9 members, out of which, 5 members (or 55% of board, minimum requirement is 50%) are Independent Non-Executive Directors (INEDs).
- Mr Kuan Kam Hon is the Executive Chairman of Hartalega and his total remuneration package for FY22 was MYR2.7m (or 0.1% of FY3/22 net profit).
- Hartalega has 3 female directors on the board, representing 33% of the board (minimum requirement is 30%).
- Its audit committee is made up by the 1 NINED and 4 INEDs while remuneration committee is made up by 1 NINED and 3 INEDs.
- Its risk management and sustainability committee is made up of 3 INEDs and 1 NINED. The CEO resigned from the committee on 5 July 2022.
- Deloitte PLT has been Hartalega's external auditor since 2014.
- The Group has a Whistleblowing Policy in place, whereby the reports are lodged to an independent third-party outsourced service provider via email and/or website ("Hartalega Speak Up"), which are available in multiple languages (i.e. English, Bahasa Malaysia, Burmese, Bengali and Nepali).
- Hartalega has had no governance issues in the past. The only related party transactions were the dividend and interest income received from subsidiaries.
- The growth of the Group has been organic and hence, there have been no business acquisitions.
- Its products have never been reprimanded or penalised by the authorities or its customers.

[1]*Risk Rating & Score* - derived by Sustainalytics and assesses the company's exposure to unmanaged ESG risks. Scores range between 0 - 50 in order of increasing severity with low/high scores & ratings representing negligible/significant risk to the company's enterprise value, respectively, from ESG-driven financial impacts. [2]*Score Momentum* - indicates changes to the company's score since the last update - a negative integer indicates a company's improving risk score; a positive integer indicates a deterioration. [3]*Controversy Score* - reported periodically by Sustainalytics in the event of material ESG-related incident(s), with the impact severity scores of these events ranging from Category 0-5 (0 - no reports; 1 - negligible risks; ...; 5 - poses serious risks & indicative of potential structural deficiencies at the company).

ESG@MAYBANK IBG

	Quantitative Parameters (Score: 47)					
	Particulars	**Unit**	**FY3/20**	**FY3/21**	**FY3/22**	*** TOPG (FY8/22)**
E	Scope 1 emissions	tCO2e	513,496	626,972	521,681	666,458
	Scope 2 emissions	tCO2e	131,962	183,460	136,705	261,962
	Total	**tCO2e**	**645,458**	**810,432**	**658,386**	**928,420**
	Scope 3 emissions	tCO2e	NA	NA	NA	21,907.6
	Total	**tCO2e**	**NA**	**NA**	**NA**	**950,327.4**
	GHG intensity (Scope 1 and 2)	tCO2e/rev RMm	220.7	120.9	83.5	166.6
	Electricity consumption intensity	kWh/1,000 pcs gloves	7.15	8.61	8.12	8.62
	Water consumption intensity	cu. M/1,000 pcs gloves	0.11	0.12	0.17	0.36
	Natural gas consumption intensity	MMBTU/1,000 pcs gloves	0.31	0.32	0.34	0.31
	Carbon emission intensity	tCO2/1,000 pcs gloves	0.020	0.022	0.023	0.0195
	Total waste generated intensity	kg/1,000 pcs gloves	0.36	0.41	0.51	0.15
	Non-hazardous waste recycled	%	65.5	64.7	70.6	68.4
S	% of women in workforce	%	34	36	37	31
	% of women in management roles	%	NA	NA	33.3	50.0
	Proportion of locals as new hires	%(avg)	NA	NA	99	93
	Lost time injury frequency (LTIF) rate	number (avg)	0.92	0.81	0.53	0.86
	Training hours per employee	number	32	18.1	43.2	55.5
G	MD/CEO salary as % of reported net profit	%	NA	0.4	0.1	NA
	Board salary as % of reported net profit	%	2.7	1.4	0.3	5.2
	Independent directors on the Board	%	56	63	56	58
	Female directors on the Board	%	38	38	33	36

Qualitative Parameters (Score: 50)

a) Is there an ESG policy in place and whether there is a standalone ESG committee or is it part of a risk committee?

Yes - it has an established sustainability framework/handbook and a Sustainability Working Committee (SWC) that is chaired by the CEO and comprises members of the C-Suite and the senior management from the Health & Safety, Social Compliance and Governance, Risk & Compliance departments.

b) Is the senior management salary linked to fulfilling ESG targets?

No, but to demonstrate its commitment to high safety performance, number of accidents is identified as a key KPI for management.

c) Is the company a signatory of or adheres to the UN Global Compact (UNGC) Initiative and has adopted TCFD reporting?

No.

d) Any major controversies that the company is involved in which has impacted its reputation?

No. A remediation programme was established in 2021 to ensure its workers are not subjected to any form of forced labour. To calculate the amount to be reimbursed to each worker, a third party organisation was engaged to interview the workers and a scientific statistical methodology to be applied to determine the appropriate amount.

f) What are the 2-3 key carbon mitigation/water/waste management strategies adopted by the company?

Energy efficiency: Successfully commissioned a second cogeneration power plant at NGC facility. Water mgmt: Installing water ultrafiltration system which allows Hartalega to utlise treated water (from local rivers) at production site and reducing dependency on municipal water sources. Waste mgmt: Hartalega implements a comprehensive waste management programme for hazardous and non-hazardous waste aligned with ISO 14001:2015 standards.

g) Does carbon offset form part of the net zero/carbon neutrality target of the company?

No.

Target (Score: 100)

Particulars	Target	Achieved
Established a 5% reduction target for water consumption intensity by FY2024, with FY2021 as a baseline.	11%	17%
Progressing towards achieving target of 22% reduction of carbon emissions intensity by 2024 with 2021 baseline	1.7%	2.3%
Number of accidents is identified as a KPI for management	0%	0%
Retained ISO 14001:2015 (Environmental Management Systems) certification for Bestari Jaya facility since 2017	100%	100%
Zero Cost Recruitment Policy	100%	100%

Impact

NA

*** Peer Comparison**

We have benchmarked HART's ESG metrics against that of its closest listed peer with publicly available comparable metrics - Top Glove (TOPG MK; Sell; TP: MYR0.52). The peer's ESG standing has been assessed separately.

ESG score	Weights	Scores	Final Score
Quantitative	50%	47	24
Qualitative	25%	50	13
Target	25%	100	25
Total			**61**

As per our ESG assessment, HARTA has an established framework, internal policies, and tangible mid/long-term targets but needs to make headway in improving its quantitative "E" metrics YoY. HARTA's overall ESG score is **61**, which makes its ESG rating **above average** in our view (average ESG rating = 50; refer to Appendix I for our ESG Assessment Scoring).

LOGISTICS & TRANSPORT

Westports Holdings Bhd

lohyanjin.loh@maybank-ib.com

Risk Rating & Score[1]	10.4 (Low)
Score Momentum[2]	-0.8
Last Updated	21 Jul 2022
Controversy Score[3] (Updated: 11 Oct 2022)	1 - Business ethics incidents

Business Model & Industry Issues

- Westports is the largest port operator in Malaysia and also the 12th busiest port globally with an annual capacity of 14m TEUs. Its success is mainly attributable to its strategic location, deep channel and world-class efficiency.
- The group consistently complies with the various environmental, safety and regulatory standards and also aims to make sustainability its core mission. It has one of the most comprehensive ESG disclosure. We note that Westports is one of only a few listed entities in Malaysia that issue a comprehensive Sustainability Report (since 2016) in accordance with the internationally-recognised GRI Standards.
- In our view, Westports is a sustainable port operator well-positioned to capitalise on global economic growth, with its related expansion in trade activities in the years ahead. The "Westports 2" concession (effectively doubling capacity to 28m TEUs) is targeted to be finalised by 2H22, after which the first new berth should commence operation in 2025.
- **Westports also scores above-average in our proprietary scoring methodology (see next page) with an overall score of 62/100.**

Material E issues

- Its sites have been certified with ISO 14001 (International Standards for Effective Environmental Management System) since 2009.
- Diesel consumption – In FY21, it consumed 52m litres of diesel (+5% YoY). It plans to reduce its reliance on diesel through optimising its fleet of tractors/RTG cranes and participate in the government's B7 biodiesel programme.
- Energy efficiency – In FY21, energy intensity increased by 28% to 12.34 kWh/TEU. Mgmt aims to reduce this by replacing all conventional lightbulbs to LED, and employing IoT power meters to monitor consumption.
- Scheduled waste disposal – In FY21, scheduled waste disposal jumped to 464 tonnes (+82% YoY).
- Hydraulic oil recycling – In FY21, it increased its volume of recycled hydraulic oil by 7% YoY to 14.3 tonnes
- Mangrove re-planting – As of 2021, it has planted 2,000 mangrove saplings and 8,488 mangrove trees.
- For "Westports 2", preliminary detailed Environmental Impact Assessment (EIA) completed and obtained approval from local port authority to proceed with the plan/negotiations for "Westports 2".

Material S issues

- Male employees account for 98% of its total workforce. However, <0.1% of its employees are foreigners.
- Westports' pay and benefits exceed the minimum rate set by national laws and regulations. In FY21, training hours per employee increased by more than double YoY.
- Westports achieved ISO 45001:2018 certification (Occupational Health and Safety) in October 2021. In FY21, the number of incidents per 100K TEUs increased to 8.1 (FY19: 6.8) for its container operations. However, there were no cases reported for the conventional operations.
- Westports positioned Pulau Indah at the core of its CSR initiatives from the onset. The 'Zero Poverty Programme at Pulau Indah' elevates villagers' quality of life and upgrades the island's development. C.35% of its workforce are Pulau Indah residents.

Key G metrics and issues

- The Board has a total of 13 members, out of which 8 are independent directors (or 62% of the Board; minimum requirement is 50%).
- There are 4 women directors on the Board, representing 31% of the board. Minimum requirement for female representation is 30%.
- The Chairman is Tan Sri Datuk G. Gnanalingam while the Group Managing Director is Datuk Ruben Emir Gnanalingan (Chairman's eldest son). Collectively, the family holds a 48.6% stake in Westports.
- Hutchison Port Holdings, through South Port Investment Holdings Limited, is the second biggest shareholder, holding a 23.5% stake in Westports. It has 2 non-executive directors on the Board.
- All 4 committees are chaired by and comprised of an independent majority.
- In FY21, directors' remuneration accounted for 2% of group's net profit.
- Deloitte has been the group's external auditor since 2018. Prior to that, the group was audited by KPMG for a 5-year period since its listing in 2013.
- In FY21, related party transactions were insignificant at <MYR1.0m (FY20: MYR4.4m).
- In Feb 2020, the group signed an SPA for the MYR394m purchase of a 146ha land at Pulau Indah (next to the existing sites) from its major shareholder, the Gnanalingam family. At the EGM in May 2020, 99.99% of the shareholders (ex-Gnanalingam family) voted for the land acquisition as the land is vital to the group's future expansion and the valuation was deemed fair by the independent valuer.
- In Mar 2021, the group signed an SPA for the MYR230m purchase of the Boustead Cruise Centre (BCC) in a 50:50 JV with MMC Corp-owned Northport. The purchase price was deemed fair as it valued BCC at 0.8x FY21 P/BV and was also c.20% below the ind. valuer's estimate (MYR289m).
- The group has a strong whistleblowing policy. In FY19, the group began incentivising reporting with cash rewards.

[1]***Risk Rating & Score*** - derived by Sustainalytics and assesses the company's exposure to unmanaged ESG risks. Scores range between 0 - 50 in order of increasing severity with low/high scores & ratings representing negligible/significant risk to the company's enterprise value, respectively, from ESG-driven financial impacts. [2]***Score Momentum*** - indicates changes to the company's score since the last update - a negative integer indicates a company's improving risk score; a positive integer indicates a deterioration. [3]***Controversy Score*** - reported periodically by Sustainalytics in the event of material ESG-related incident(s), with the impact severity scores of these events ranging from Category 0-5 (0 - no reports; 1 - negligible risks; ...; 5 - poses serious risks & indicative of potential structural deficiencies at the company).

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	Quantitative Parameters (Score: 30)					
	Particulars	**Unit**	**2019**	**2020**	**2021**	*** PSA SG (2020)**
E	Scope 1 emissions	k tCO2e	133.1	132.4	138.6	485
	Scope 2 emissions	k tCO2e	59.3	70.1	75.1	247
	Total	**k tCO2e**	192.4	202.5	213.7	**732**
	Scope 3 emissions	k tCO2e	9.9	8.9	9.2	N/A
	Total	**k tCO2e**	202.3	211.4	222.9	**N/A**
	Fuel consumption	k TJ	1.9	1.9	2.0	9.6
	Electricity energy consumption	k TJ	0.4	0.4	0.5	3.9
	Total energy consumption	**k TJ**	**2.3**	**2.4**	**2.5**	**13.5**
	Energy efficiency	kWh/TEU	9.33	9.61	12.34	12.11
	Total scheduled waste (unrecycle)	tonnes	312	255	464	N/A
	Total water withdrawal	ML	1,011	1,121	1,535	2,684
	Cases of enviornmental non-compliance	number	0	0	0	N/A
S	% of women in workforce	%	2.6%	2.3%	2.4%	N/A
	% of women on the board	%	27.3%	27.3%	30.8%	22.2%
	Total training hours	hr	355,342	256,101	552,845	N/A
	Lost-time injury frequency rate/m hrs worked	number	0.14	0.35	0.37	3.25
	Total CSR investment	RM m	2.8	2.7	5.6	N/A
	Total local procurement	RM m	294.8	316.6	397.5	N/A
	Total cybersecurity incidents	number	1	0	0	N/A
	Employee turnover rate	%	15%	10%	17%	6%
G	Board of Directors' salary as % of reported NP	%	1.7%	1.7%	1.5%	0.2%
	EC salary to avg staff cost	x	84.0	81.2	82.2	N/A
	Independent directors on the Board	%	54.5%	54.5%	61.5%	N/A
	Total corruption and bribery cases	number	0	0	0	N/A

Qualitative Parameters (Score: 88)

a) Is there an ESG policy in place and whether there is a standalone ESG Committee or is it part of Risk committee?

Yes - it has an established sustainability framework and a newly formed sustainability committee since 1 January 2022.

b) Is the senior management salary linked to fulfiling ESG targets?

No

c) Does the company have human rights violation policies in place?

Yes.

d) Does the company have an Equal Employment Opportunity (EEO) policy in place?

Yes - this was introduced in 2021.

e) Does the company have a mechanism to capture Scope 3 emissions - which parameters are captured?

Yes - it calculates GHG emissions from point-to-point air travel as well as employees' daily commute to work.

f) What are the 2-3 key carbon mitigation/water/waste management strategies adopted by the company?

Westports participates in the Government's B7 biodiesel programme to lower its GHG emissions; It is converting all of its conventional light bulbs to lower energy consuming LED alternatives (147kWh saved); Replacing its Euro 2M with lower sulphur content Euro 5-grade diesel (of 10 ppm, vs. 500 ppm for the former) for improved air quality; And installing solar panels (172 kWp) on TSG Hall and a projected 9.5 MWp on the warehouse.

g) Does the company have an internal carbon pricing policy in place?

Yes - Westports has applied an initial internal price of RM15/tonne for CO2 emissions in its investment decisions.

h) Is the company involved in any major adverse controversies relating to labor, corruption and bribery, environmental hazards?

No.

Target (Score: 100)

Particulars	**Target**	**Achieved**
To adopt TCFD framework to report on climate related financial disclosures and its impact	Yes	N/A

Impact

N/A

*** Peer Comparison**

We have benchmarked WPRTS's ESG metrics against that of its closest peer with publicly available comparable metrics – Port of Singapore Authority (PSA SG; N/R). Peer's ESG standing has not been assessed and solely exists as a point of reference.

ESG score	Weights	Scores	Final Score
Quantitative	50%	30	15
Qualitative	25%	88	22
Target	25%	100	25
Total			**62**

As per our ESG assessment, Westports has an established framework, internal policies, and tangible targets. However, there is still room for improvements for Westports in terms of formulating more detailed targets and tying it to the company's KPIs. Westports overall ESG score is 62, which makes its ESG rating above average in our view (average ESG rating = 50; refer to Appendix I for our ESG Assessment Scoring).

MISC Bhd

lohyanjin.loh@maybank-ib.com

Risk Rating & Score[1]	18.1 (Low)
Score Momentum[2]	-0.5
Last Updated	19 Jul 2022
Controversy Score[3] (Updated: 12 Apr 2022)	2 - Operations incidents (emissions)

Business Model & Industry Issues

- MISC is among the world's 5 biggest shipping conglomerates. It has businesses in energy shipping, offshore floating platform, marine engineering, construction, conversion and repair, as well as port management services.
- The group strictly complies with various safety, regulatory and environmental standards in all its bases of operations globally. A member of the FTSE4Good Index for 8 consecutive years, it is also one of a few large Malaysian conglomerates that has made sustainability a core ethos, in line with the UN's Sustainable Development Goals (SDGs).
- Although the group has had its fair share of corporate governance issues in the past, it has displayed a resolute commitment towards reducing its environmental impacts and promoting fair labour practises. With an outward-looking management team keen on growing its international business and reducing revenue reliance on its parent (PETRONAS), MISC is well-placed to continue thriving as a global leader in the maritime energy trade.
- **MISC also scores above-average in our proprietary scoring methodology (see next page) with an overall score of 71/100.**

Material E issues

- In 2017, the group formalised its Carbon Commitment policy to improve the energy efficiency of its fleet and it set clear carbon reduction targets to achieve by 2020, which it has.
- In 2020, carbon emissions were down 12% from the 2016 baseline while the fleet's SOx/NOx intensity was also down by 88%/8% YoY.
- In 2021, MISC embarked and became a supporter of Task Force on Climate-related Financial Disclosure (TCFD) and pledged to Net-Zero GHG Emissions Commitment by 2050.
- By 2030, the group aims to replace half of its petroleum tanker fleet with the better energy efficiency tankers, namely the LNG dual-fuel tankers.
- In 2021, c. 100% of hazardous waste generated from non-shipping ops were either reused, recycled or recovered.
- The group has had no major spill incidents since 2013.
- In 2019, MISC joined the 'Getting to Zero Coalition' that is closely aligned to the UN IMO's Initial Greenhouse Gas Strategy. The group aims to reduce its GHG emissions by >50% (vs. 2008 levels) by 2050.

Material S issues

- In FY21, its 8,851 workforce consisted of 47 nationalities with 66% of them under the age of 40. Female employment is relatively low at 13% but the group aims to hire more female employees.
- Management also continuously strives to upskill its workforce. In 2021, it invested MYR29.7m in various functional and leadership competency programmes (25,154 participants across 336k programs).
- Both Lost Time Injury Frequency (LTIF) and Total Recordable Case Frequency increased to 0.15 (FY21: 0.04) and 0.39 (FY21: 0.18). MISC was also ranked in the industry's top quartile for Occupational Health & Safety (OSH) standards by INTERTANKO.
- The group has a zeroto lerance policy towards workplace discrimination and harassment. There is also a Whistleblowing Policy in place.

Key G metrics and issues

- PETRONAS is the group's largest shareholder, with its latest controlling shareholding at 51%.
- Out of the total 12 Board members, 9 are independent directors (IDs), representing 75% of the Board. However, we note that Datuk Nasarudin Md Idris has served MISC in different leadership position for >10 years since 2014.
- FY20 has been a turbulent year for the group's leadership which saw the independent chairman stepping down and subsequently replaced by a non-independent political appointee. Following intervention from the PM's Office, the latter resigned after just 17 days in office. This was followed by the resignation of a non-independent director and the appointment of 3 new IDs, one of whom was appointed Chairman on 10th Dec.
- Female representation on the Board is now 33% (a Malaysian Code on Corporate Governance or MCGG best practise) with 4 of the 12 members being women. This is also in line with PETRONAS' board diversity policy.
- The Board has adopted a formal policy of limiting the tenure of its IDs to 9 years and although the longest serving ID has been in his role for collectively more than 10 years, this was across 2 stints (5.7 & 4.8 years respectively) over a 17.2-year period.
- The position of Non-Executive Chairman and Group President (CEO) are held by different individuals.
- All three Board committees (audit, nomination & remuneration, governance & risk) are chaired by and comprised of an independent majority.
- Total directors' remuneration is low at 0.1% of FY21 group core net profit (FY20: 0.1%).
- Ernst & Young has been the group's external auditor for 19 years.
- Owing to PETRONAS being the group's parent and key customer, there are significant related party transactions (RPTs). In FY21, >20% of MISC's revenue was derived from such related parties.
- In 2018, four senior employees were investigated by MACC for corruption, but no charges were pressed.

[1]*Risk Rating & Score* - derived by Sustainalytics and assesses the company's exposure to unmanaged ESG risks. Scores range between 0 - 50 in order of increasing severity with low/high scores & ratings representing negligible/significant risk to the company's enterprise value, respectively, from ESG-driven financial impacts. [2]*Score Momentum* - indicates changes to the company's score since the last update – a negative integer indicates a company's improving risk score; a positive integer indicates a deterioration. [3]*Controversy Score* - reported periodically by Sustainalytics in the event of material ESG-related incident(s), with the impact severity scores of these events ranging from Category 0-5 (0 - no reports; 1 - negligible risks; ...; 5 - poses serious risks & indicative of potential structural deficiencies at the company).

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	Quantitative Parameters (Score: 43)					
	Particulars	**Unit**	**2019**	**2020**	**2021**	**K-Line (2020)**
E	Scope 1 emissions	k tCO2e	4342.4	4132.4	4148.6	9,202.6
	Scope 2 emissions	k tCO2e	51.7	48.5	37.9	21.8
	Total	**k tCO2e**	4394.1	4180.9	4186.6	9224.4
	Scope 3 emissions	k tCO2e	N/A	N/A	1352.6	1,219.5
	Total	**k tCO2e**	4394.1	4180.9	5539.2	10443.9
	Fleets' carbon intensity efficiency ratio	gCO2e/ton-nm	5.7	6.0	6.5	4.5
	Energy consumption	GJ	60,341,818	58,771,890	58,956,125	N/A
	Fleet garbage generation per vessel	m3	71	65	71	42
	Fleet plastic waste generation per vessel	m3	32	27	27	N/A
	Total freshwater withdrawal	m3	740,542	635,686	658,153	N/A
	Total spills	number	2	1	3	0
	Cases of enviornmental non-compliance	number	2	0	1	N/A
	Sox emissions	tonnes	30,500	3,352	3,922	N/A
	Nox emissions	tonnes	44,174	38,289	38,763	N/A
S	% of women in workforce	%	12.5%	13.0%	13.3%	25.9%
	% of women on the board	%	22.2%	27.3%	33.3%	10.0%
	Total turnover rate	%	26%	30%	22%	N/A
	Lost-time injury frequency	number	0.10	0.04	0.15	0.00
	Penalties concerning health and safety impacts	number	1	0	2	N/A
	Fatalities/major security incidents	number	0	1	0	0
G	CEO's remuneration % of net profit	%	0.21%	-1.88%	0.18%	N/A
	Total directors' remuneration to avg staff cost	x	5.0	6.2	8.9	N/A
	Independent directors (tenure <10yrs)	%	44.4%	63.6%	66.7%	40.0%
	Major corruption and bribery cases	number	0	0	0	N/A

Qualitative Parameters (Score: 100)

a) Is there an ESG policy in place and whether there is a standalone ESG Committee or is it part of Risk committee?

Yes - it has an established sustainability framework established since 2012, lead by the Sustainability Sterring Committee. In 2021 a Board Governance and Risk Committee was established to provide board oversight on sustainability

b) Is the senior management salary linked to fulfiling ESG targets?

Yes, in 2021, the board approved the addition of ESG-related key performance indicators into the 2022 Management scorecard

c) Does the company follow TCFD framework for ESG reporting?

In 2021 the company has initiated the process of adopting TCFD. MISC is also a signatory to the Neptune Declaration on Seafarer Wellbeing and Crew Change, the Call to Action for Shipping Decarbonisation and became constituent of the Dow Jones Sustainability Emerging Markets Index

d) Does the company have a mechanism to capture Scope 3 emissions - which parameters are captured?

Yes, from 2021 the company has started to capture Scope 3 - upstream leased assets, downstream leased assets and investments

e) What are the 2-3 key carbon mitigation/water/waste management strategies adopted by the company?

1) LNG dual-fuel DPSTs are fitted with volatile organic compound (VOC) recovery systems, the VOCs captured is reused as a supplementary fuel, along with other efficencies helps save up to 4,000 tonnes of fuel per year per vessel, 2) installed a flare gas recovery system (FGRS) on FPSO Kikeh that recovers gas and uses it elsewhere in the facility reducing GHG emissions, 3) installation at offshore assets of a combined-cycle power system which reuses waste heat from the turbine exhaust to generate steam reducing emissions vs open cycle system

f) Does carbon offset form part of the carbon mitigation plan?

Yes - Offsets from nature-based sequestration or technological carbon removal projects will be used to compensate residual emissions to reach net zero by 2050, pathway suggests 12% of carbon emissions will need to be offset starting 2031

Target (Score: 100)

Particulars	Target	Achieved
Net Zero GHG emissions by	2050	N/A
To reduce GHG intensity by 2030 for shipping operations (base year 2008)	-50%	-15%
Deploy zero emission vessels by	2030	N/A

Impact

N/A

*** Peer Comparison**

We have benchmarked MISC's ESG metrics against that of its closest listed peer with comparable metrics that is publicly available - Kawasaki Kisen Kaisha (9107 JP, N/R). The peer's ESG standing is not assessed and solely exists as a point of reference.

ESG score	Weights	Scores	Final Score
Quantitative	50%	43	21
Qualitative	25%	100	25
Target	25%	100	25
Total			**71**

As per our ESG assessment, MISC has an established framework, internal policies, and tangible targets. However, there is still room for improvements on areas such as carbon pricing implementation. MISC's overall ESG score is 71, which makes a very strong ESG rating and is well above average for the industry, in our view (average ESG rating = 50; refer to Appendix I for our ESG Assessment Scoring).

Malaysia Airports Holdings Bhd

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Risk Rating & Score[1]	20.2 (Medium)
Score Momentum[2]	+0.1
Last Updated	19 Jul 2022
Controversy Score[3] (Updated: 21 Sep 2022)	2 - Customer incidents (Quality & safety)

Business Model & Industry Issues

- In our view, MAHB has favourable ESG credentials. Furthermore, it is transparent in reporting financial statements and airport statistics. Airport statistics are released every month.
- MAHB does not donate much to corporate responsibility programmes but we note that it maintains loss-generating airports and short take-off and landing (STOL) ports to maintain much needed connectivity to rural and remote locations.
- A key risk has always been the Government Of Malaysia (GOM) compelling MAHB to construct new or expand airports which are not financially viable.
- That said, recent history alleviated our concerns as the construction of klia2 and expansion of Penang airport were financially viable. Another planned expansion of Penang airport has been delayed due to the COVID-19 pandemic.
- **MAHB also scores above-average in our proprietary scoring methodology (see next page) with an overall score of 61/100.**

Material E issues

- MAHB is a signatory to the Aviation Industry Commitment to Action on Climate Change.
- Thus, it strives to create a pathway to carbon neutral growth and a carbon-free future.
- KLIA achieved Airport Carbon Accreditation - Level 3 of 6 by Airports Council International.
- Has been using solar panels to generate electricity since FY14 (FY21: 17,399 MWh).
- Commenced installing solar panels at Kota Kinabalu and Langkawi airports.
- Emissions, energy and water consumption intensity per passenger rose in FY20 and FY21.
- Higher emissions, energy and water consumption intensity per passenger were due to COVID-19.
- The COVID-19 pandemic resulted in fewer passengers which were necessary for economies of scale.
- Operates 6,247.1 ha of oil palm planted area which is Malaysian Sustainable Palm Oil certified.

Material S issues

- Manages 5 international airports, 17 domestic airports and 17 STOL ports in Malaysia.
- Pre-COVID-19, only 8 were profitable. They effectively subsidised airports/ STOL ports in rural/remote locations.
- Passengers departing STOL ports are also not charged passenger service charges.
- Employed 9,837 people globally in FY21. The male to female employee ratio was 65%:35%.
- In terms of total remuneration, ratio between female and male employees was 1:1.
- Employee retention rate was high at 94% in FY21 (FY20: 93%).
- Invested only MYR0.5m to train and develop Malaysian employees in FY21 (-82% YoY).
- Yet, average training hours per Malaysian employee in FY21 stood at 39 hours (+200% YoY).

Key G metrics and issues

- BOD comprises 1 Non-Independent Non-Executive Director (NINED) Chairman, 1 Managing Director, 4 NINEDs and 5 Independent Non-Executive Directors (INED).
- Major shareholders, Khazanah Nasional and Employees Provident Fund are represented by 1 NINED each.
- Share capital includes one MYR1 Special Rights Redeemable Preference Share (Special Share).
- The Special Share enables the GOM to ensure that MAHB operations are consistent with GOM policies.
- The Special Shareholder is entitled to receive notices of meetings but not entitled to vote at such meetings.
- However, the Special Shareholder is entitled to attend and speak at such meetings.
- The Special Shareholder has the right to appoint not more than 6 directors at any time.
- Ministry Of Finance represented by Chairman and 1 NINED. Ministry Of Transport represented by 1 NINED.
- 5 of the 11 BOD members are women. Has a policy of ≥3 women directors and 30% of BOD made up of women.
- FY21 directors' remuneration was flat YoY (i.e. MYR3.9m) notwithstanding MAHB remaining loss-making in FY21.
- Ernst & Young PLT is the independent auditor. They have been appointed for >10 years.
- Occasionally fined by Malaysian Aviation Commission for failing to meet certain service quality levels.
- That said, these fines were minor at <MYR2m and did not materially impact earnings.
- Note that a major IT network failure disrupted operations at KLIA for 4 days in Aug 2019.
- Thus, an Board IT Oversight Committee was formed to review and advise on IT-related projects, strategies, cyber security risks and IT disaster recovery.
- Received ISO 37001:2016 Anti-Bribery Management System Certification for procurement processes.
- Was investigated by the Malaysia Anti-Corruption Commission in 2021 but no further action was taken.

[1]***Risk Rating & Score*** - derived by Sustainalytics and assesses the company's exposure to unmanaged ESG risks. Scores range between 0 - 50 in order of increasing severity with low/high scores & ratings representing negligible/significant risk to the company's enterprise value, respectively, from ESG-driven financial impacts. [2]***Score Momentum*** - indicates changes to the company's score since the last update - a negative integer indicates a company's improving risk score; a positive integer indicates a deterioration. [3]***Controversy Score*** - reported periodically by Sustainalytics in the event of material ESG-related incident(s), with the impact severity scores of these events ranging from Category 0-5 (0 - no reports; 1 - negligible risks; ...; 5 - poses serious risks & indicative of potential structural deficiencies at the company).

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Quantitative Parameters (Score: 38)						
	Particulars	Unit	2019	2020	2021	CHANGI (FY3/22)
E	Scope 1 emissions - KUL	tCO2e	2,367	N/A	2,171	773
	Scope 2 emissions - KUL	tCO2e	116,250	N/A	76,662	106,154
	Total	**tCO2e**	**118,617**	**N/A**	**78,834**	**106,927**
	Scope 3 emissions - KUL	tCO2e	1,198,953	N/A	340,761	475,487
	Total	**tCO2e**	**1,317,570**	**N/A**	**419,595**	**582,414**
	Scope 1 & 2 emissions intensity - KUL	tCO2e/passenger	0.00	N/A	0.02	0.02
	Energy consumption	m kWh	619.6	475.9	426.5	260.2
	Energy consumption intensity	kwh/passenger	4.4	11.1	11.8	50.0
	Water consumption	m m3	11.4	9.6	8.0	1.2
	Water consumption intensity	m3/passenger	0.1	0.2	0.2	0.2
	Waste generated	m kg	26.6	12.1	11.7	3.3
	Waste generated intensity	kg/passenger	0.2	0.3	0.3	0.6
	% of waste diverted away from landfill	%	26.7%	22.3%	26.5%	99.0%
	Solar energy generated	MWh	18,763	16,949	17,399	N/A
S	% of women in workforce	%	34.6%	34.2%	35.0%	36.4%
	Investment in community projects as % of revenue	%	0.0%	0.0%	0.1%	N/A
	% of local suppliers	%	82%	90%	97%	N/A
	Employee attrition rate	%	N/A	8.1%	6.3%	13.7%
	Employee training per employee	hours	N/A	13	37	25
	Ratio between female and male remuneration	Ratio	1:1	1:1	1:1	N/A
G	Board salary as % of revenue	%	0.1%	0.2%	0.2%	N/A
	Independent directors on the Board	%	54.5%	54.5%	54.5%	92.3%
	Female directors on the Board	%	45.5%	36.4%	45.5%	23.1%

Qualitative Parameters (Score: 67)

a) is there an ESG policy in place and whether there is a standalone ESG committee or is it part of a risk committee?

Yes. MAHB has a Sustainability Policy and Framework. It also has a Sustainability Unit that reports to the Senior General Manager, Strategy that in turn, reports to the Management Executive Committee.

b) is the senior management salary linked to fulfilling ESG targets?

Yes. This is especially so going forward as it crafts its Environmental Master Plan 2.0 that will set ESG targets for the next 4-5 years.

c) Does the company follow the task force of climate related disclosures (TCFD) framework for ESG reporting?

Not yet but plans to adopt TCFD framework for ESG reporting gradually going forward to coincide with its Environmental Master Plan 2.0.

e) Does the company have a mechanism to capture Scope 3 emissions - which parameters are captured?

Yes. That said, we note that MAHB has only been capturing emissions for Kuala Lumpur International Airport (KUL) thus far. It would do well to capture emissions for the other Malaysian airports and Istanbul Sabiha Gokcen (SAW) as well.

f) What are the 2-3 key carbon mitigation/water/waste management strategies adopted by the company?

Upgraded district cooling plant at KUL, replacing conventional bulbs with LED bulbs throughout all airports, installing solar panels on more and more airports and installed rainwater harvesting system at KUL.

g) Does carbon offset form part of the net zero/carbon neutrality target of the company?

Yes. MAHB will disclose more in its Environmental Master Plan 2.0 which will be made available in 2023.

Target (Score: 100)

Particulars	Target	Achieved
Carbon neutral and net zero	By 2050	N/A

Impact

NA

*** Peer Comparison**

We have benchmarked MAHB's ESG metrics against that of its closest peer with publicly available comparable metrics – Changi Airports (Not Rated). The peer's ESG standing has not been assessed and solely exists as a point of reference.

ESG score	Weights	Scores	Final Score
Quantitative	50%	38	19
Qualitative	25%	67	17
Target	25%	100	25
Total			**61**

As per our ESG assessment, MAHB has an established framework and internal policies but needs to make headway in capturing emissions for more airports and setting tangible mid/long term targets. MAHB's overall ESG score is **61**, which makes its ESG rating **above average** in our view (average ESG rating = 50; refer to Appendix I for our ESG Assessment Scoring).

OIL & GAS

Yinson Holdings Bhd

tjliaw@maybank-ib.com

Risk Rating & Score¹	21.3 (Medium)
Score Momentum²	-0.5
Last Updated	08 Oct 2022
Controversy Score³ (Updated: 14 Oct 2022)	1 - Society incidents (human rights)

Business Model & Industry Issues

- Ahead of its peers in the energy transition roadmap. Vastly improved its disclosures/plans in FY22. Advanced its 'E' initiatives. Released its Climate Goals Roadmap & TCFD-Aligned Climate Report. Aims to be: (a) carbon neutral by 2030 – measure/ verify GHG emissions, deploy emission reduction measures where reasonably practicable & use high quality offsets and (b) net zero by 2050. Set carbon emission reduction targets - (a) remove regular flaring on 2/3 of operating FPSOs by 2030, (b) reduce CO^{2e}/ boe-intensity by 30% to 11.4 by 2030 and (c) reduce CO^{2e}/ MWh-intensity by 50% to 136.8 by 2030.
- Renewable energy plans: Targets to build a 3GW/ 10GW RE capacity by 2023/29. Established strong development projects pipeline; collaborates with Verano for RE opportunities in Latin America (800MW greenfield pipeline).
- Green technology: Accelerates its e-mobility adoption agenda. Invested in these start-ups: (i) Oyika (e-2Ws), (ii) Moovita (autonomous vehicle), (iii) Lift Ocean AS (hydrofoil technology for marine harbour crafts), (iv) Sterling PBES Energy Solutions (marine battery solutions) and (v) ChargEV (public charging operator).
- Developed the Zero-Emissions FPSO concept, for clean and responsible production of hydrocarbons.
- We are positive on Yinson, given its improving record across ESG parameters and compliance with international standards.
- **Yinson also scores well above-average in our proprietary scoring methodology (see next page) with an overall score of 78/100.**

Material E issues

- Its climate goals are based on a 3-pronged framework:
  - *(i) carbon reduction: GHG emissions from Scope 1, 2 & 3, limit FPSOs carbon intensity & replace usage of grid electricity with RE,*
  - *(ii) carbon compensation: invest in zero/ low-carbon technologies & increase RE generation; and*
  - *(iii) Carbon removal: invest into solutions, such as afforestation & reforestation, utilise tech-based removal solutions (direct air capture (CAC) & CCUS).*
- Its carbon emissions in FY22 for Scope: (i) 1: 38,122.7t (-16.9% YoY), (ii) 2: 275.4t (+0.8% YoY) & (iii) 3: 1.3m t. Carbon intensity: 23 kg/boe. 160.6 litres oil spill.
- Vented 286.4 mmscfd of gas (from cargo tanks) and flared 9,125 mmscf of gas (under equity approach) in FY22.
- Energy consumption in FY22: (i) FPSO: 2,409,177.6 MWh, (ii) OSV: 131,912.3 MWh and (iii) Office: 607,8 MWh.
- Air emissions (non-GHG), on non-methane volatile organic compounds (tonnes) in FY22: (i) FPSO: 417.8
- Waste produced (t) in FY22: (i) FPSO:550.4, (ii) OSV:66.6.
- Maintained a strong HSE performance in FY22: (i) zero LTI, (ii) zero fatality, (iii) 1 medical treatment case (FY21: 1), (iv) 2 restricted work cases (2) & (v) 4 first aid cases (2).

Material S issues

- Has a diversified workforce, spanning 9 countries with over 20 nationalities. 14% of its workforce is below 30 years old in FY22, with female employees making up 22% of the Group's workforce.
- Advocates the hiring of local workforce where it operates.
- Continued to maintain a good safety record across the board, with: (i) zero Loss-Time injury (LTI) across divisions (i) and 0.21 Total Recordable Injury (TRI) Frequency in FY22, on the back of 6.8m total man-hours worked.

Key G metrics and issues

- Yinson's board comprises 11 directors – 6 Independent Directors (IDs), 2 Non-Executive Independent Directors (NEIDs) and 3 Executive Directors (EDs).
- A very experienced and gender-diversified board - 82% are above 50 years old and 36% are female.
- The Lim family - founder/ major shareholder of Yinson (36.4%) has 4 board seats and holds the Chairman, CEO and 2 Directors positions.
- The CEO's total remuneration package for FY22 accounted for 0.7% of the Group's pretax profit.
- Yinson is audited by PWC, the world's 2nd largest network of professional firms since 2018.
- Its Audit Committee is made up of 1 senior INED (chairman) and 3 INEDs.
- Its Board Risk & Sustainability Committee is made up of 4 INEDs and 1 ED.
- It has nominal (<0.1% of revenue) but recurring related party transactions (RPTs), which mainly comprises advances, management fees and dividend income.
- Continuously structures its report based on International Integrated Reporting Council's <IR> Framework since FY20. Aligns its indicators with GRI standards.
- Yinson walked away from the Ezion deal in 2020 and forfeited its USD20m deposit.
- While some may see the venture into RE as a change in business direction, both its FPSO and RE models share many similar traits and competencies – i.e. long-term contracts, recurring cashflows, project, management & delivery, financing and project reliability.
- Its CG performance has been acknowledged through several recognitions: (i) Top 9th percentile of Sustainalytics ESG Risk Ratings (Energy Services Industry), (ii) Asia's best Integrated Report 2021, (iii) Top ESG issuance – BPAM Bond market Awards and (iv) Best Green Financing in Malaysia – the Asset Triple A Awards 2021.

¹***Risk Rating & Score*** - derived by Sustainalytics and assesses the company's exposure to unmanaged ESG risks. Scores range between 0 - 50 in order of increasing severity with low/high scores & ratings representing negligible/significant risk to the company's enterprise value, respectively, from ESG-driven financial impacts. ²***Score Momentum*** - indicates changes to the company's score since the last update - a negative integer indicates a company's improving risk score; a positive integer indicates a deterioration. ³***Controversy Score*** - reported periodically by Sustainalytics in the event of material ESG-related incident(s), with the impact severity scores of these events ranging from Category 0-5 (0 - no reports; 1 - negligible risks; ...; 5 - poses serious risks & indicative of potential structural deficiencies at the company).

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	Quantitative Parameters (Score: 56)					
	Particulars	**Unit**	**FY1/20**	**FY1/21**	**FY1/22**	*** BAB MK (2021)**
E	Scope 1 GHG emissions	k tCO2e	265.4	45.9	38.1	706.5
	Scope 2 GHG emissions	k tCO2e	0.2	0.3	0.3	0.3
	Total	**k tCO2e**	**265.6**	**46.1**	**38.4**	**706.8**
	Scope 3 GHG emissions	k tCO2e	5,422	757.4	1,286.3	N/A
	Total	**k tCO2e**	**5,687.6**	**803.5**	**1,324.7**	**706.8**
	GHG intensity (by revenue)	kg CO2e/MYR'm	2,257.9	165.7	367.3	326.8
	Energy consumption	MWh	504.3	2,603,136	2,541,698	531.7
	Energy consumption intensity (by revenue)	MWh/MYR'm	0.2	536.8	704.7	0.2
	Water discharge	Mega L	N/A	7,153.2	2,494.7	N/A
S	% of women in workforce	%	28.2%	21.7%	21.9%	43.0%
	% of women as new hires	%	N/A	N/A	22.0%	N/A
	Lost time injury frequency (LTIF) rate	%	3	0	0	0.6
G	CEO salary as % of reported pretax profit	%	1.4%	0.8%	0.7%	0.9%
	Board salary as % of reported pretax profit	%	3.6%	2.2%	2.0%	1.9%
	Independent directors on the Board	%	50%	50%	55%	57%
	Female directors on the Board	%	40%	40%	36%	29%

Qualitative Parameters (Score: 100)

a) Is there an ESG policy in place and whether there is a standalone ESG committee or is it part of a risk committee?

Yes. It has established a Climate Goals roadmap (Oct 2021) and released a TCFD-aligned Climate Report (Dec 2021) - designed to be ambitious and yet reflect a realistic business operations case. Its climate goals targets have been set to be fully consistent with the Paris Agreement goals It has a sustainability committee that reports directly to the Board.

b) Has the Company set out its Carbon Neutral and Net Zero target aspirations?

Yes. It announced its Climate Goals in May 2021 to be: (i) carbon neutral by 2030 and (ii) net zero by 2050.

c) Does the company follow TCFD framework for ESG reporting?

Yes. It announced support for TCFD in Aug 2021 and released a TCFD-aligned Climate Report in Dec 2021.

d) Does the Company invest in ESG?

*Yes. It invests in: (i) raising RE generation capacity and (ii) zero/ low carbon (green) technologies for **carbon compensation** and (i) nature-based carbon removal solutions (afforestation & reforestation) and (ii) utilisation of technology-based carbon removal solutions such as Direct Air Capture (DAC) and carbon capture, utilisation & storage (CCUS) - for **carbon removal**.*

e) Does its track its ESG progress?

Yes. It is committed to ensure the adoption of appropriate calculation methodology and the integrity of information disclosed. It engages a 3rd party verifier to conduct the verification of GHG emissions (mainly FPSOs). It has SLF framework (Sep 2021) that sets Sustainability Targets (SPTs).

f) Is the senior management salary linked to fulfiling ESG targets?

Yes

g) Does the company have a mechanism to capture Scope 3 emissions - which parameters are captured?

Yes, but limited on categories for now - Business travels (Cat. 7) and Downstream leased assets (Cat. 13).

Target (Score: 100)

Particulars	**Target**	**Achieved**
Carbon neutral	2030	N/A
Net zero	2050	N/A
Carbon intensity reduction: -30% to 12/ -30% to 8 (base: 2020: 17 kg CO2/ boe)	2030/ 2050	23
Annual RE's generation (TWh): +1.7/ +5.6/ +14.0/ +22.4 (base: 2020)	5-30 years	0.3
Establishment of climate goals roadmap	Oct-21	2021

Impact

N/A

*** Peer Comparison**

We have benchmarked Yinson's ESG metrics against that of its closest listed peer with publicly available comparable metrics - Bumi Armada Bhd (BAB MK; Buy; TP: MYR0.58). The peer's ESG standing is not assessed and solely exists as a point of reference.

ESG score	Weights	Scores	Final Score
Quantitative	50%	56	28
Qualitative	25%	100	25
Target	25%	100	25
Total			**78**

As per our ESG assessment, YNS has an established framework, internal policies, and tangible mid/long-term. YNS' overall ESG score is **78**, which makes its ESG rating **above average** in our view (average ESG rating = 50; refer to Appendix I for our ESG Assessment Scoring).

Dialog Group Bhd

tjliaw@maybank-ib.com

Risk Rating & Score[1]	26.4 (Medium)
Score Momentum[2]	-5.2
Last Updated	25 May 2022
Controversy Score[3] (Updated: 01 Jan 2000)	0 - No reported incidents

Business Model & Industry Issues

- It continues to make progress in FY22. It introduced: (i) an ESG Roadmap (short-term: 2023-2025 & Medium-term: 2026-2030), (ii) an ESG Strategy Framework and (iii) established a Sustainability Development Working Committee.
- It is also in the process of carrying out a climate change risk assessment in line with TCFD.
- It is also investing in the sustainable and renewable space (i.e. Diyou PCR – BOO a recycled PET pellets production facility).
- We are positive on Dialog given its strong track record across the ESG parameters & compliance with international standards.
- **Dialog also scores above-average in our proprietary scoring methodology (see next page) with an overall score of 56/100.**

Material E issues

- Its MY op in FY22: (i) used 43.9m kWh of energy, (ii) emitted 14,450t of CO^2 (Scope 1: 4,090t; Scope 2: 7,011t), (iii) consumed 125,722 m^3 of water, (iv) generated & disposed 1,151 MT of hazardous waste & (v) reported 0 water contamination incident in its Langsat ops – $0m^3$ of fuel oil was spilled into the sea due to a leak from a drain point on piping at the jetty.
- In its biodiversity agenda, detailed Environment Impact Assessment (DEIAs) is compulsory. It engages with registered Department of Environment (DOE) consultant to conduct yearly environment audit.
- It uses state-of-the-art monitoring devices to enable live monitoring of environmental statistics such as Total Suspended Solids (TSS) and turbidity.
- Its catalyst handling services operations is committed to operating in a dust-free environment and is compliant with SIRM QAS/ IQNET ISO 14001:2015 certifications.
- Uses Life Cycle Analysis (LCA) to assess the environmental impacts in its Fibreglass Reinforced Plastic ops, resulting in the recycling/reuse of acetone for the cleaning process. Its Dialog Tower is Green Building Index (GBI) compliant.

Material S issues

- Has a diversified workforce (2,680 workforce in FY22), spanning 10 countries. 65% of them are permanent staff.
- An advocate in hiring of local workforce in the geographies it operates in. The current workforce composition is predominantly local hires (84% of total).
- 62% of its workforce is between the ages of 30-50, 21% below the age of 30 and 17% above the age of 50.
- 22%/ 22%/ 26% of the Group's senior/ upper/ middle management workforce are female represented.
- Continues to maintain a good and safety records, with low Loss-Time injury (LTI) and Total Recordable Injury (TRI) Frequency of 0 and 0.66 respectively in FY22.
- Dialog has been supporting the MyKasih Foundation, a non-profit social purpose organisation since its inception in 2009. Contributed MYR380m in FY22 to support 3,802 families and students through this program.
- Contributed MYR5.5m in its CSR activities in FY22.

Key G metrics and issues

- Dialog's board comprised 8 directors – 4 Independent Directors (IDs), 1 NINE-Director, 1 Executive Chairman, 1 Executive Deputy Chairman and 1 NIE.
- A very experienced and gender-diversified board - 75% are above 60 years old and 38% are female.
- Tan Sri Ngau Boon Keat – co-founder/ executive chairman/ major shareholder of Dialog collectively owns 18.3% of Dialog via Azam Utama S/B, Wide Synergy S/B and family members.
- The Chairman/ BOD's total remuneration packages of MYR6.6m/ MYR11.8m for FY22 accounted for 1.2%/ 2.2% of the Group's pretax profit respectively.
- Dialog has been audited by BDO PLT, the world's fifth largest network of professional firms.
- Dialog's dividend payout ratio is set at 40%.
- Its Audit Committee/ Board Risk Management Committee has 3 Independent Non-Executive Directors.
- Dialog currently has one material litigation – it received a Writ and Statement of Claim from Teguh Kemajuan S/B (TKSB) in Apr 2019.
    - *TKSB challenged the compulsory land acquisition at Pengerang under a judicial review, which have been dismissed by the courts. The land acquisition was completed in Apr 2013 and forms part of the Pengerang Independent Terminals S/B (PITSB). PITSB comprises of Dialog, Vopak Group and the State Government of Johor, which currently operates an independent storage terminal.*
    - *TKSB is claiming for USD1.35b in damages. Dialog believes the claims are scandalous, frivolous and amounts to an abuse of process of the Court.*
- Dialog and Tanjung Langsat Port S/B (TLP) have mutually agreed to terminate the arbitral proceedings in Mar 2018 in relation to the provisions of the EPCIC contract worth MYR89.5m and settlement agreement.
    - *Recall that Dialog previously constructed a 100k cu m oil terminal, which was completed and handed over to TLP in 2007. In Aug 2008, there was unfortunate fire incident at the terminal, which TLP is claiming MYR700m in damages.*
- Dialog adopted a Whistleblowing Policy in 2019 and rolled out the Sexual Harassment Policy in Apr 2022.

[1]***Risk Rating & Score*** - derived by Sustainalytics and assesses the company's exposure to unmanaged ESG risks. Scores range between 0 - 50 in order of increasing severity with low/high scores & ratings representing negligible/significant risk to the company's enterprise value, respectively, from ESG-driven financial impacts. [2]***Score Momentum*** - indicates changes to the company's score since the last update - a negative integer indicates a company's improving risk score; a positive integer indicates a deterioration. [3]***Controversy Score*** - reported periodically by Sustainalytics in the event of material ESG-related incident(s), with the impact severity scores of these events ranging from Category 0-5 (0 - no reports; 1 - negligible risks; ...; 5 - poses serious risks & indicative of potential structural deficiencies at the company).

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	Quantitative Parameters (Score: 27)					
	Particulars	Unit	FY6/20	FY6/21	FY6/22	YNS MK (FY22)
E	Scope 1 emissions	k tonnes CO2e	5.9	4.2	6.1	38.1
	Scope 2 emissions	k tonnes CO2e	5.5	7.4	8.4	0.3
	Total	**k tonnes CO2e**	**11.3**	**11.6**	**14.5**	**38.4**
	Scope 3 emissions	k tonnes CO2e	NA	NA	NA	1,286.3
	Total	**k tonnes CO2e**	**11.3**	**11.6**	**14.5**	**38.4**
	GHG intensity (by revenue)	kg CO2e/MYR'm	4.9	7.2	6.2	367.3
	Energy consumption	m kWh	34.7	35.1	43.9	2,541,698
	Energy consumption intensity (by revenue)	m kWh/MYR'm	0.015	0.022	0.019	704.7
	Share of renewable energy used in ops	% of energy consumed	NA	0.3	0.9	0.0
	Total waste generated	MT	1,306	243	1,151	617.0
	Total waste generated intensity (by revenue)	MT/MYR'm	0.6	0.1	0.5	0.2
S	Women in the workforce	%	19.0%	19.0%	19.0%	21.9%
	Women in senior management	%	25.0%	18.0%	22.0%	9.1%
	Community investment	MYR'm	5.4	5.2	5.5	1.9
	Training hours per employee	hours	15	14	14	80
	Work related employee fatalities	number/m manhours	0.0	0.0	0.0	0.0
	Lost time injury frequency (LTIF) rate	%	0.1	0.0	0.0	0.0
G	Chairman/ MD/CEO salary as % of reported pretax profit	%	0.7%	1.0%	1.2%	0.9%
	Board salary as % of reported pretax profit	%	1.5%	1.9%	2.2%	1.9%
	Independent directors on the Board	%	56%	56%	50%	57%
	Female directors on the Board	%	44%	44%	38%	29%

Qualitative Parameters (Score: 71)

a) Is there an ESG policy in place and whether there is a standalone Sustainability Committee or is it part of Risk committee?

Yes.It has established a standalone Sustainability Development Working Committee (SDWC). It: (i) oversees business functions in ensuring robustness of system of sustainability management, (ii) considers input in sustainability progress, (iii) coordinates ESG matters and initiatives, (iv) develops and recommends sustainability targets and (v) implement ESG strategies.

b) Has the Company set out its Net Zero target aspirations?

Yes. It targets to be Net Zero Carbon Emissions by 2050.

c) Is the company a signatory of or adheres to the UN Global Compact (UNGC) Initiative?

Yes. It supports the goals and initiatives.

d) Does the company follow TCFD framework for ESG reporting?

It announced support for this in FY22 and is in the process of carrying out a climate change risk assessment in line with TCFD.

e) Does the Company invest in ESG?

Yes. It invests in post-consumer plastic recycling industry, via: (i) Diyou PCR JV in Dec 2021 to BOO a food grade recycled polyethylene terephthalate (recycled PET) pellets production facility using recycled PET flakes as raw materials to produce food grade recycled PET pellets for sale and (ii) provide solutions for waste management and support the implementation of recycling via DIALOG ESECO S/B (May 2022). Its other investments include: (i) a carbon capture technology (CCS) company in US and (ii) Hiringa Energy, a full-service green hydrogen provider that is on a mission to create a zero emission energy future for NZ.

f) Does its track its ESG progress?

Yes, via its ESG Roadmap (Short-term: 2023-2025 & Medium-term: 2026-2030) and Climate Change Strategy.

g) Does the company have a mechanism to capture Scope 3 emissions - which parameters are captured?

No

Target (Score: 100)

Particulars	Target	Achieved
Lost Time Injury Rate (LTIR) for FY22	0.14	0.00
Net Zero Carbon Emissions	2050	N/A
Establishment of an ESG Roadmap	FY22	FY22
Sexual harassment policy	FY22	Oct-21

Impact

NA

*** Peer Comparison**

We have benchmarked Dialog's ESG metrics against that of its closest listed peer with publicly available comparable metrics - Yinson (YNS MK; Buy; TP: MYR4.05). The peer's ESG standing has been assessed separately.

ESG score	Weights	Scores	Final Score
Quantitative	50%	27	14
Qualitative	25%	71	18
Target	25%	100	25
Total			**56**

As per our ESG assessment, Dialog has an established framework, internal policies, and tangible mid/long-term targets but needs to make headway in improving its quantitative "E" metrics YoY. Dialog's overall ESG score is 56, which makes its ESG rating above average in our view (average ESG rating = 50; refer to Appendix I for our ESG Assessment Scoring).

PETROCHEMICALS

Petronas Chemicals Group Bhd

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Risk Rating & Score[1]	23.7 (Medium)
Score Momentum[2]	-4.2
Last Updated	16 May 2022
Controversy Score[3] (Updated: 21 Sep 2022)	0 - No reported incidents

Business Model & Industry Issues

- As an integrated chemicals producer, PCHEM's biggest ESG challenge lies in the negative sentiment surrounding single-use plastics. However, we note that its single-use plastic capacity is only <5% of its total capacity and PCHEM is actively expanding its bio-friendly product portfolio. Meanwhile, much of the world's recyclable plastics end up in landfills/oceans due to low recycling rates. Hence, via its New Plastic Economy (NPE) initiatives, PCHEM hopes to raise awareness amongst the local communities whilst simultaneously investing in infrastructure to enable recycling initiatives in the future.
- PCHEM primarily uses natural gas as its fuel, which is the cleaner option. Its key 2024 targets include: (i) capping GHG emissions at 6.98 million tonnes (2021: 7.0 million tonnes) and (ii) increasing its waste recycling (3R) rate to 82% (2021: 75%).
- We are positive on the sector's long-term growth as we believe the demand for plastics will remain robust given that there is no real alternative.
- **PCHEM also scores above-average in our proprietary scoring methodology (see next page) with an overall score of 69/100.**

Material E issues

- Energy intensity was 15.76 GJ/T in 2021 (2020: 15.73 GJ/T), representing a 11% reduction against the baseline in 2014. It had achieved its 10% reduction target in 2020.
- GHG emission intensity increased to 0.67 tonne CO_2e/tonne (+2% YoY). Its target is to cap its Scope 1/2 emissions at 6.92 million tonnes by 2024 (FY21: 7.0 million tonnes).
- In 2021, its freshwater withdrawal intensity was up to 3.69m^3/tonne (+5% YoY), while its wastewater discharge was lower at 171.4 tonnes (-4% YoY) due to lower discharge from plant turnarounds and ongoing improvements. PCHEM is currently in the midst of setting water reduction targets.
- PCHEM's hazardous waste recycling (3R) rate was 75% in 2021 (2020: 85%) - It has a formal target of increasing and maintaining the 3R rate to 82% by 2024.
- Its SO_x emissions were markedly lower in 2021, with a YoY reduction of 21%. Overall emissions intensity (inc. NO_x) was however up 10% YoY in 2021 from higher flaring activities.
- PCHEM aims to recover plastic waste that is the equivalent of 100% of its domestic polymer sales volume by 2030.

Material S issues

- Recorded a third straight year of zero fatalities across its scope of operations in 2021.
- Lost time injury frequency (LTIF) halved YoY to 0.07 incidents per million man-hours in 2021 (2020: 0.14).
- Women made up only c.17% of its workforce in 2021 as its manufacturing ops workers are mostly male. Encouragingly, 1/4 hires were female in FY21 while female representation at Senior Mgmt/Mgmt Committee level was 25%/36% respectively.
- Its CSR initiatives' (e.g. *ecoCare*, *Be Green*, *Back To School*) reach was 295,000 people in 2021 (2020: 70,000). It has set itself a new target to reach 1 million people by 2024.

Key G metrics and issues

- As of 31 Dec 2021, the Board had a total of 8 Directors, out of which, 4 (or 50%) were Independent Non-Executive Directors (INEDs).
- The Board has 2 female Directors, representing 25% of the Board's composition (lower than the minimum of 30%). PCHEM is considering hiring another female Director within a year in order to achieve the minimum target of 30%.
- PCHEM's major shareholder is PETRONAS, which holds a 64.4% equity stake. PETRONAS has 4 Directors on the Board (or 50% of the Board's composition).
- Datuk Md Arif Mahmood was the Non-Independent Non-Executive Chairman and also represents PETRONAS. His remuneration package was MYR326,500 in 2021. However, as a PETRONAS appointee, the remuneration was paid to PETRONAS instead.
- The Top 5 Senior Management (MD/CEO, CFO, Chief Manufacturing Officer, Chief Commercial Officer and Head of Strategic Planning and Ventures) are seconded from PETRONAS. Their remuneration packages are benchmarked against the industry but PCHEM does not disclose the remuneration amounts as it is subject to the Personal Data Protection Act (PDPA) 2010.
- KPMG PLT is the external auditor and has served PCHEM for more than 10 years.
- PCHEM has numerous related party transactions (RPTs) with PETRONAS as the businesses are inter-related. PETRONAS explores and produces gas while PCHEM uses the gas as feedstock and fuel to produce a wide range of chemical products. In FY21, the largest RPT was for the purchase of processed gas and natural gas from PETRONAS, which amounted to MYR3.8b (or 36% of its COGS in FY21).
- Transactions with Government related entities are also considered RPTs as the ultimate holding company of PCHEM and PETRONAS is the Government of Malaysia. Examples of these RPTs include the purchase of electricity from Tenaga Nasional (TNB MK, HOLD, TP: MYR9.30) and sale of petro-chemical products to Pertubuhan Peladang Kebangsaan.

[1]***Risk Rating & Score*** - derived by Sustainalytics and assesses the company's exposure to unmanaged ESG risks. Scores range between 0 - 50 in order of increasing severity with low/high scores & ratings representing negligible/significant risk to the company's enterprise value, respectively, from ESG-driven financial impacts. [2]***Score Momentum*** - indicates changes to the company's score since the last update – a negative integer indicates a company's improving risk score; a positive integer indicates a deterioration. [3]***Controversy Score*** - reported periodically by Sustainalytics in the event of material ESG-related incident(s), with the impact severity scores of these events ranging from Category 0-5 (0 - no reports; 1 - negligible risks; ...; 5 - poses serious risks & indicative of potential structural deficiencies at the company).

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	Quantitative parameters (Score: 39)					
	Particulars	**Unit**	**2019**	**2020**	**2021**	*** TPIA IJ (2021)**
E	Scope 1 GHG emissions	m tCO2e	5.73	5.77	5.67	1.96
	Scope 2 GHG emissions	m tCO2e	1.29	1.33	1.33	0.47
	Total	**m tCO2e**	**7.02**	**7.10**	**7.00**	**2.43**
	Scope 3 GHG emissions	m tCO2e	N/A	3.06	3.27	N/A
	Total	**m tCO2e**	**7.02**	**10.16**	**10.27**	**N/A**
	GHG intensity (Scope 1 and 2)	tCO2e/t	0.68	0.66	0.67	0.63
	Energy intensity	GJ/ton	15.37	15.73	15.76	11.43
	Share of renewable energy use in operations	%	N/A	N/A	N/A	N/A
	Wastewater discharge (chemical O_2 demand)	tonnes	153.7	177.8	171.4	22.7
	Hazardous waste 3R rate	%	70%	85%	75%	98%
	Air emissions intensity	ton/kT	2.83	2.21	2.42	N/A
	NPE (New Plastic Economy) investments	MYR m	8	3	3	N/A
	Cases of environmental non-compliance	number	0	0	0	N/A
S	% of women in workforce	%	17.4%	17.2%	17.3%	15.2%
	% of women in management roles	%	30.8%	30.2%	21.9%	21.3%
	Lost time injury frequency (LTIF) rate	number	0.08	0.14	0.07	0.11
	Lives impacted by CSR outreach ('000)	number	20	70	295	N/A
G	MD/CEO salary as % of reported net profit	%	N/A	0.10%	0.02%	N/A
	Board salary as % of reported net profit	%	0.06%	0.21%	0.04%	N/A
	Independent directors on the Board	%	50%	50%	50%	33%
	Female directors on the Board	%	25%	25%	25%	0%

Qualitative Parameters (Score: 100)

a) is there an ESG policy in place and whether there is a standalone ESG committee or is it part of a risk committee?

Yes - as of FY21, it has an established framework and a working sustainability committee that reports quarterly to the Board.

b) is the senior management salary linked to fulfilling ESG targets?

Yes - in FY21, sustainability KPIs were introduced in top management performance appraisals.

c) Does the company follow the task force of climate related disclosures (TCFD) framework for ESG reporting?

Yes

e) Does the company have a mechanism to capture Scope 3 emissions - which parameters are captured?

Yes - purchased goods and services (Cat. I) and use of sold products (Cat. II); calculated using Simplified IPCC Tier 1 method.

f) What are the 2-3 key carbon mitigation/water/waste management strategies adopted by the company?

It has a framework to reduce 20%/80% of emissions by 2030/40 based on the 2020 baseline, in line with its 2050 NCZE aspiration. It conducted a feasibility study with a private firm to turn non-recyclable plastic waste into crude naphtha and also invested MYR40m in a plant that produces Bio-MEG from palm biomass. To reduce air emissions, it utilises UHPM fuel cell applications (24% lower CO_2 emissions) while for water mgmt, it deployed mobile reverse osmosis tech to reduce raw water consumption by 16% and has invested MYR3m in an automated water quality management system powered by renewable energy.

g) Does carbon offset form part of the net zero/carbon neutrality target of the company?

Yes

Target (Score: 100)

Particulars	Target	Achieved
Reduce Scope 1 & 2 GHG emissions (tonnes) by 2024	6.98	7.00
Reduce energy intensity (GJ/tonne) vs 2014 baseline	10%	11%
Recover plastic waste from total MY polymer production volume by 2030	100%	N/A
Increase hazardous waste 3R (reduce, reuse, recycle) rate by 2024	82%	75%
Increase number of people reached by CSR outreach initiatives ('000)	1,000	295
Reduce 2030/40 carbon emissions vis-a-vis 2020 baseline	20%/80%	N/A
Net-zero carbon emissions by 2050	Net 0	N/A

Impact

NA

*** Peer Comparison**

We have benchmarked PCHEM's ESG metrics against that of its closest listed peer with publicly available comparable metrics - Chandra Asri Petrochemical (TPIA IJ; N/R). The peer's ESG standing is not assessed and solely exists as a point of reference.

ESG score	Weights	Scores	Final Score
Quantitative	50%	39	19
Qualitative	25%	100	25
Target	25%	100	25
Total			**69**

As per our ESG assessment, PCHEM has an established framework, internal policies, and tangible mid/long-term targets but needs to make headway in improving its quantitative "E" metrics YoY. PCHEM's overall ESG score is **69**, which makes its ESG rating **above average** in our view (average ESG rating = 50; refer to Appendix I for our ESG Assessment Scoring).

PLANTATIONS

Genting Plantations Bhd

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Risk Rating & Score[1]	42.6 (Severe)
Score Momentum[2]	-0.7
Last Updated	27 Sept 2022
Controversy Score[3] (Updated: 26 Sept 2022)	3 - Ops incidents (land use & biodiversity)

Business Model & Industry Issues

- GENP is an integrated plantation group which is predominantly in oil palm plantation, refinery, biodiesel, and biotech. It has a property development arm that focuses on unlocking the value of some of its well-located estates in Peninsular Malaysia.
- It has 243,453 ha of land concession (about ~3.3x the size of Singapore) across Malaysia and Indonesia, of which 159,318 ha are planted with oil palm (own estate: 139,022 ha, and plasma in Indonesia: 20,296 ha). The group provides employment for ~24,000 workers in FY21. Its geographical spread naturally exposes GENP to multiple ESG risks. Key risks include natural disasters, deforestation, labour practises, supply chain monitoring, and governance and corruption.
- In FY21, GENP attained 100% MSPO certification in Malaysia (FY19: 100%) while 4 out of its 12 Indonesian estates are ISPO certified (FY19: 2 out of 12). Group wide, 19 out of 32 estates are RSPO certified. GENP intends to achieve group-wide RSPO and ISPO certifications by 2023.
- GENP is a constituent member of FTSE4Good Bursa Malaysia Index.
- **GENP scores below-average in our proprietary scoring methodology (see next page) with an overall score of 35/100.**

Material E issues

- GENP has been a proponent of zero burning since the early 1990s. It has a "No Deforestation, No new development on Peat and No Exploitation" policy, and ascribes to the principle of no new development on high conversation value (HCV) and high carbon stock (HCS) areas. Additionally, only areas where consent from land owners has been obtained will be developed.
- GENP has a time-bound plan to achieve 100% traceability to plantation level (own mills) by 2026, from 92% traceability in FY21 (FY19: 48%). It has already achieved 100% traceability to mills.
- Plantations and mills in Malaysia recorded an average GHG emission of 0.54t CO_2 eq/mt CPO (FY19: 0.407t CO_2 eq/mt).
- Out of GENP's total landbank, some 30,064 hectares or 12% thereof are set aside for conservation purposes. Of these, 8,969 ha are non-HCV area.
- GENP has made significant investments into biotech since 2007 with a long term view to increase crop yields and boost efficient land use.

Material S issues

- As at 11 Nov 2022, there is no outstanding RSPO complaint involving local communities or environment.
- In helping the livelihoods of the local community, GENP has allocated about 20,296 ha (FY19: 15,854 ha) of group's planted area in Indonesia for plasma (ie smallholders scheme).
- GENP provides the children of its workforce and those in nearby local communities' access to childhood education. Among others, it supports 195 schools in and close to its operations in Malaysia, and Indonesia.
- It made COVID-19 contributions amounting to MYR2.6m in FY21.
- A dedicated channel was also introduced for all employees to voice any problems or grievances faced at work, as part of GENP's pledge to protect the rights of its employees.

Key G metrics and issues

- Following the retirement of an Independent Non-Executive Directors (INED) in June 2022, there are currently 8 Board members comprising 5 INED (63%) and 3 Executive Directors (ED; 38%). Its Chairman is an INED.
- Genting Bhd (GENT MK), majority owned by the Lim family, holds a 55.4%-equity stake in GENP. GENT is represented by 3 EDs on the Board.
- The CEO's total remuneration package for FY21 was 0.7% of core net profits (3-year average: 0.9%).
- Its Nomination Committee now comprises just 2 INEDs following the retirement of one other INED in June 2022.
- Its Remuneration Committee comprises 3 INEDS.
- Its Audit Committee and Risk Management Committee comprise 3 INEDs each following the retirement of one other INED in June 2022.
- Two of its INEDs have been Board members for more than 12 years. The Board is of the view that the ability of long serving INEDs to remain independent and to discharge their duties with integrity and competency should not be measured solely by tenure of service or any pre-determined age. However, the Board is looking into refreshing the composition of the Board in view of the proposed amendments to the Main Market Listing Requirements of Bursa which will take effect on 1 June 2023 whereby Directors whose service exceeds a cumulative period of 12 years will be re-designated as non-independent directors.
- There is currently 1 female Board member. The Board is striving to achieve at least 30% female representation (presently 11%) upon identification of suitably qualified candidates.
- Women make up 24% of its workforce, and 20% are in management.
- PwC has been GENP's external auditor for at least the past 10 years. Over the past 10 years, the annual audited accounts were signed off by four different audit partners.
- The Board has oversight of the group's development and dutifully upholds good sustainability corporate governance.
- There have been no questionable related-party transactions for the recent past five years.

[1]***Risk Rating & Score*** - derived by Sustainalytics and assesses the company's exposure to unmanaged ESG risks. Scores range between 0 - 50 in order of increasing severity with low/high scores & ratings representing negligible/significant risk to the company's enterprise value, respectively, from ESG-driven financial impacts. [2]***Score Momentum*** - indicates changes to the company's score since the last update - a negative integer indicates a company's improving risk score; a positive integer indicates a deterioration. [3]***Controversy Score*** - reported periodically by Sustainalytics in the event of material ESG-related incident(s), with the impact severity scores of these events ranging from Category 0-5 (0 - no reports; 1 - negligible risks; ...; 5 - poses serious risks & indicative of potential structural deficiencies at the company).

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	Quantitative Parameters (Score: 6)					
	Particulars	Unit	2019	2020	2021	* WIL SP (2021)
E	Scope 1 GHG emissions	'000 tCO2e	140.6	147.0	169.2	7,882.1
	Scope 2 GHG emissions	'000 tCO2e	11.2	5.7	9.0	4,273.4
	Total	**'000 tCO2e**	**151.8**	**152.7**	**178.2**	**12,155.5**
	Scope 3 GHG emissions	'000 tCO2e	5.7	5.2	7.1	N/A
	Total	**'000 tCO2e**	**157.5**	**157.9**	**185.3**	N/A
	GHG emissions intensity (Estate)	tCO2e/t	0.086	0.097	0.082	N/A
	GHG emissions intensity (Oil Mills)	tCO2e/t	0.321	0.385	0.458	0.66
	Energy usage (Group)	TeraJoules	1,115	1,091	914	194,098
	Water consumption	megalitres	15,182	14,001	13,265	98,774
	Biomass Use (repurposed / recycled)	m MT	1.22	0.99	1.59	3.88
	Proportion of RSPO-certified plantation area	%	33%	34%	34%	79%
	Total area set aside for conservation (includes HCV area)	ha	29,213	29,765	30,064	44,253
S	% of women in workforce	%	20.0%	23.0%	24.0%	23.0%
	% of women in management roles	%	18.0%	19.0%	20.0%	17.0%
	Recordable work related injury rate	No. / m hrs	5.3	11.0	14.2	5.67
	Fatality incidences	No.	3.0	5.0	3.0	26.0
G	MD/CEO salary as % of reported net profit	%	1.74%	0.59%	0.66%	0.62%
	Board salary (excl.ED) as % of rept'd net profit	%	0.54%	0.32%	0.59%	0.12%
	Independent directors on the Board	%	67%	67%	67%	50%
	Female directors on the Board	%	11%	11%	11%	15%

Qualitative Parameters (Score: 67)

a) Is there an ESG policy in place and whether there is a standalone ESG committee or is it part of a risk committee?
Yes, it has a Sustainable Policy and a Sustainability Working Committee.

b) Is the senior management salary linked to fulfilling ESG targets?
Not yet.

c) Does the company follow the task force of climate related disclosures (TCFD) framework for ESG reporting?
No.

e) Does the company have a mechanism to capture Scope 3 emissions - which parameters are captured?
Yes.

f) What are the 2-3 key carbon mitigation/water/waste management strategies adopted by the company?
In addition to zero-burning policy and no deforestation commitment, other commitments include conserving and improving the natural environment, protecting High Carbon Stock forests, High Conservation Value areas, peatlands, etc. Waste from its mills has been mostly repurposed for use as fertilisers, and recovered for energy generations.

g) Does carbon offset form part of the net zero/carbon neutrality target of the company?
Yes. Among others, GENP has initiated conservation, restoration, reforestation, rehabilitation, and tree-planting projects.

Target (Score: 60)

Particulars	Target	Achieved
Targets Carbon Neutrality by 2030	Carbon Neutral	N/A
Commitment to No Exploitation adopted in the entire supply chain by 2050	No Exploitation	N/A
Zero fatality	Zero	3
Traceability to Plantation (FFB Suppliers) - Own mills by 2026	100%	92%
Traceability to Plantation (FFB Suppliers) - External mills by 2030	100%	86%

Impact

NA

*** Peer Comparison**

We have benchmarked GENP's ESG metrics against that of its closest listed peer with publicly available comparable metrics - Wilmar International (WIL SP; Hold; TP: SGD4.27). The peer's ESG standing has been assessed separately.

ESG score	Weights	Scores	Final Score
Quantitative	50%	6	3
Qualitative	25%	67	17
Target	25%	60	15
Total			**35**

As per our ESG assessment, GENP has an established framework, internal policies, and tangible mid/long-term targets but needs to make headway in improving its quantitative "E" and "G" matrix. GENP's overall ESG score is **35**, which makes its ESG rating **below average** in our view (average ESG rating = 50; refer to Appendix I for our ESG Assessment Scoring).

IOI Corporation Bhd

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Risk Rating & Score[1]	25.0 (Medium)
Score Momentum[2]	-0.5
Last Updated	03 Nov 2021
Controversy Score[3] (Updated: 8 July 2022)	3 - Ops incidents (land use & biodiversity), employee incidents (human rights)

Business Model & Industry Issues

- IOI is one of the world's largest upstream oil palm grower with 207,113 ha of land concession (about 2.84x the size of Singapore) across Malaysia and Indonesia, of which 175,192 ha are planted with oil palm. It has a global presence in 8 countries with more than 24,000 employees. Such wide geographical exposure exposes IOI to multiple ESG risks. Key risks include natural disasters, deforestation, labour practises, supply chain monitoring, and governance and corruption.
- IOI has a No Deforestation, No New Planting on Peat, No Social Exploitation (NDPE) policy and maintains a moratorium on deforestation since 2016. Its commitment also includes no development of HCS forests and HCV areas.
- IOI is well ahead of the curve when it comes to food safety. While some other refiners are grappling with the issue of 3-MCPD and GE, IOI has been able to offer its EU and US customers premium quality oil that meet those safety standards.
- Traceability in palm oil is increasingly important to MNC customers. As of Dec 2021, palm oil sourced by IOI is 100% traceable to the mills and 83% traceable to the plantation. Similarly, PKO sourced is also 100% traceable to the mills and ~71% to the plantation. Most of the palm oil and PKO sourced are RSPO certified with 59% for palm oil and 67% for PKO.
- **IOI scores above-average in our proprietary scoring methodology (see next page) with an overall score of 69/100**.

Material E issues

- In FY22, IOI recorded a GHG emissions intensity of 1.7tCO2-e/t (-12% YoY). IOI has set a medium-term target based on Scopes 1 and 2, to be carbon neutral by 2030.
- It has committed to a long-term target to achieve Net Zero for carbon emissions by 2040, covering Scopes 1, 2 & 3 by focusing on working collaboratively with its suppliers to lower their emissions intensity.
- IOI recycled 89% of the group's generated waste in FY22.
- It consumed 6.88m GJ of energy in FY22, of which 27% are from renewable sources that are mainly sourced from biomass.
- Despite its size, IOI's estates are presently 100% MSPO certified and more than 85% RSPO certified.

Material S issues

- IOI has been committed to the "No Recruitment Fees Policy" since 2017. IOI is also committed and determined to achieve its objective of being a responsible and exemplary company in respecting labour rights and providing productive employment as well as good working environment for its employees.
- In response to a petition filed by Andy Hall with US CBP on alleged forced labour conditions in IOI (back in 8 June 2021), IOI shared a 3rd party audit report with US CBP on 7 Dec 2021.The 3rd party audit conducted its assessment at group level (corporate governance, risk, controls of protocol) and site level (social compliance).
- IOI believes in seeking free, prior and informed consent (FPIC) of the indigenous people. There was a land dispute with the local communities in Tinjar, Sarawak for 15 years. Actually, this dispute started back in 1997, long before IOI entered into the JV with the Land Custody and Development Authority of Sarawak in 2006. An amicable solution was reached on 30 May 2022 whereby IOI relinquished 4,615 ha out of 8,998 ha of land granted under Provisional Lease to IOI, following which the Sarawak Government will gazette those excised land as Native Community Reserve.

Key G metrics and issues

- It presently has a mid-sized Board with 8 members comprising 5 independent non-executive directors (INED), 2 non-independent non-executive directors (NINED), and 1 executive director (ED).
- As at 30 Aug 2022, the Lee Family, the largest substantial shareholder who collectively owns 50.54% stake of IOI, has 2 board seats (with just 1 ED, being the Group MD & CEO), or 25% of board representation.
- The Group MD & CEO's total remuneration package for FY22 was 1.5% of headline profits (FY18-22 average: 1.6%).
- IOI Corp is audited by BDO, the world's fifth largest network of professional firms.
- Since Sept 2022, IOI has set a maximum tenure of 9 consecutive years for the INED to be eligible for nomination by the Board to stand for re-election by shareholders. Prior to the new policy, IOI has 2 INED who have served more than 9 years in the Board but was approved by shareholders at the last AGM given their valuable contributions. 1 of them has been re-designated as NINED (on 26 Sept 2022) while the other will be retiring from the Board at the upcoming AGM.
- Its independent audit and risk management committee was made up of 4 INED prior to Sept 2022. On 26 Sept 2022, 1 INED has been re-designated as NINED by virtue of its tenure of >9 years.
- Its governance, nominating and remuneration committee is made up of 4 INED prior to Sept 2022. On 26 Sept 2022, 1 INED has been re-designated as NINED by virtue of its tenure of >9 years.
- IOI has 3 female board members, or 37.5% board representation.
- The last major RPT was back in May 2013 being part of an internal restructuring (IR) exercise that led to the demerger of IOI's property division (with an appraised asset value of MYR17.9b) into a separate new listed company - IOIPG MK (N.R). As part of the IR deal, the Lee Family injected some property assets worth MYR0.2b (ie RPT) in exchange for new IOIPG shares. The deal received 99.9% approval from shareholders.

[1]*Risk Rating & Score* - derived by Sustainalytics and assesses the company's exposure to unmanaged ESG risks. Scores range between 0 - 50 in order of increasing severity with low/high scores & ratings representing negligible/significant risk to the company's enterprise value, respectively, from ESG-driven financial impacts. [2]*Score Momentum* - indicates changes to the company's score since the last update - a negative integer indicates a company's improving risk score; a positive integer indicates a deterioration. [3]*Controversy Score* - reported periodically by Sustainalytics in the event of material ESG-related incident(s), with the impact severity scores of these events ranging from Category 0-5 (0 - no reports; 1 - negligible risks; ...; 5 - poses serious risks & indicative of potential structural deficiencies at the company).

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	Quantitative Parameters (Score: 39)					
	Particulars	**Unit**	**2019**	**2020**	**2021**	*** WIL SP (2021)**
E	Scope 1 GHG emissions	m tCO2e	3.01	2.91	2.58	7.9
E	Scope 2 GHG emissions	m tCO2e	0.05	0.06	0.04	4.3
E	**Total**	**m tCO2e**	**3.06**	**2.97**	**2.61**	**12.2**
E	Scope 3 GHG emissions	m tCO2e	9.22	8.66	8.60	N/A
E	**Total**	**m tCO2e**	**12.28**	**11.63**	**11.21**	**N/A**
E	GHG intensity (Scope 1 and 2)	tCO2e/t	1.84	1.93	1.70	0.12
E	Energy intensity	GJ/t	4.35	6.17	7.15	2.16
E	Share of renewable energy use in operations	%	60%	45%	27%	57%
E	Water consumption intensity	m^3/t	4.4	3.9	3.7	N/A
E	Waste recycling rate	%	94%	98%	89%	80%
E	Proportion of RSPO-certified plantation area	%	86%	86%	85%	79%
E	Total area set aside for conservation	Ha	15,164	9,754	10,052	44,253
S	% of women in workforce	%	31%	32%	32%	23%
S	% of women in management roles	%	23%	25%	27%	17%
S	Lost time injury frequency (LTIF) rate	No/ m hrs	17.87	31.76	25.84	3.75
S	Average training hours per employee	Hours	21.17	26.54	60.65	12.8
G	MD/CEO salary as % of reported net profit	%	2.24%	1.55%	1.50%	0.62%
G	Board salary (ex-MD) as % of reported net profit	%	0.17%	0.07%	0.08%	0.12%
G	Independent directors on the Board	%	66%	71%	63%	50%
G	Female directors on the Board	%	17%	29%	38%	15%

Qualitative Parameters (Score: 100)

a) Is there an ESG policy in place and whether there is a standalone ESG committee or is it part of a risk committee?

Yes, it has an established sustainability policy. It has a Group Sustainability Steering Committee which has oversight of sustainable development responsibilities of IOI Group and supports the Board in setting high level direction and strategic focus on sustainable business models. IOI has been working with a number of local and international labour rights experts and NGOs during the last 6 years to monitor the implementation of its labour policies as well as provide recommendations on improving them where needed.

b) Is the senior management salary linked to fulfilling ESG targets?

An indirect yes. In FY22, the evaluation of the performance of senior management included an assessment of their contribution towards achieving the sustainability and ESG goals of the IOI Group.

c) Does the company follow the task force of climate related disclosures (TCFD) framework for ESG reporting?

Yes

d) Does the company have a mechanism to capture Scope 3 emissions - which parameters are captured?

Yes - the main contributing category for the Scope 3 emissions for both the Refinery and Oleochemical divisions is from Category 1, specifically the purchase of PO, PKO, & their corresponding processed products, which makes up around 99% and 96% of Scope 3 emissions for IOI Refineries and IOI Oleochemicals, respectively. IOI is currently in the midst of calculating the Scope 3 emissions for its Plantation Division. The main contributing category for Scope 3 emissions for the Plantation division (said to account for <5% of IOI's total Plantation emissions) is from Category 1 - Purchased goods and services, specifically agrochemicals.

e) What are the 2-3 key carbon mitigation/water/waste management strategies adopted by the company?

In addition to no-burning policy, IOI has a No Deforestation, No New Peat, No Exploitation (NDPE) commitment. Commitment also extends to no development on High Carbon Stock (HCS) forests and High Conservation Value (HCV) areas. IOI has high waste recycling rate especially for its plantation and refinery divisions. Waste are generally recovered for energy generation and converted into fertilisers.

f) Does carbon offset form part of the net zero/carbon neutrality target of the company?

Yes. Among others, IOI has initiated conservation, restoration, reforestation, rehabilitation, and tree-planting projects.

Target (Score: 100)

Particulars	**Target**	**Achieved**
Reduce Scope 1&2 GHG intensity by about 40% by 2025 based on a 2015 baseline (tCO2e/t)	1.36	1.70
Medium-term target based on Scopes 1 and 2, to be carbon neutral by 2030, vs 2015 baseline	Crbn.Neutral	N/A
Long-term Net-zero carbon emissions for Scopes 1, 2 and 3 by 2040	Net zero	N/A
5-year plan (2020-2024) to increase plantation oil yield by at least 15% by end-2024 (t/ha)	5.34	4.14
5-year plan (2020-2024) to diversify planting of crops away from full reliance on oil palm (ha)	5,200	480
100% RSPO-certification for all plantations by 2023 (% of area)	100%	85%

Impact

NA

*** Peer Comparison**

We have benchmarked IOI's ESG metrics against that of its closest listed peer with publicly available comparable metrics - Wilmar International (WIL SP; Hold; TP: SGD4.27). The peer's ESG standing has been assessed separately.

ESG score	Weights	Scores	Final Score
Quantitative	50%	39	19
Qualitative	25%	100	25
Target	25%	100	25
Total			**69**

As per our ESG assessment, IOI has an established framework, internal policies, and tangible mid/long-term targets. It has a high degree of transparency in its ESG disclosures. IOI's overall ESG score is **69**, which makes its ESG rating **above average** in our view (average ESG rating = 50; refer to Appendix I for our ESG Assessment Scoring).

Kuala Lumpur Kepong Bhd

ct.ong@maybank-ib.com

Risk Rating & Score[1]	38.5 (High)
Score Momentum[2]	-1.9
Last Updated	5 June 2022
Controversy Score[3] (Updated: 05 Oct 2022)	3 – Ops incidents (land use & biodiversity), social supply chain (community relations)

Business Model & Industry Issues

- KLK is an integrated plantation group which is predominantly in oil palm plantation, refinery and oleo-chemicals. It has a property development arm that focuses on unlocking the value of some of its well-located estates in Selangor.
- Constrained by limited greenfield opportunities and its No Deforestation, No new planting on Peat, No Exploitation (NDPE) commitment, KLK has stepped up the purchases of brownfield estates with the acquisition of IJM Plantations (IJMP; privatised) at end-2021.
- Following the acquisition of IJMP in 2021, KLK has increased its land concession to 348,318 ha (about ~4.8x the size of Singapore) across Malaysia, Indonesia and Liberia, of which 275,037 ha are planted with oil palm and 8,714 ha with rubber. The group operates across 9 countries with close to 40,000 employees (excluding IJMP). Its geographical spread naturally exposes KLK to multiple ESG risks. Key risks include natural disasters, deforestation, labour practises, supply chain monitoring, and governance and corruption.
- KLK has 87% of group landbank RSPO certified in FY21 (FY20: 85%). [Note: While the group RSPO certified area will be diluted to 69% at end-2021 (ie in FY22) following the acquisition of IJMP which is not RSPO-certified, KLK targets to fully certify IJMP's land within 3 years.] FY21's production of its RSPO's CSPO grew 6% YoY to 839,478t, which represented 86% (FY20: 79%) of CPO produced in FY21.
- **KLK also scores slightly above-average in our proprietary scoring methodology (see next page) with an overall score of 52/100.**

Material E issues

- Sustainability has been inculcated in its operations since mid-1990s with strict Zero Burning Policy. Since 2014, KLK adopted NDPE policy, which is also extended to its suppliers. KLK has launched its Supplier Code of Conduct and Supplier Non-Compliance Protocol. Grievance reports received by KLK are reported on its corporate website.
- Certification status by region in FY21: Malaysia - RSPO 100% (mill & estates) and MSPO 100% certified; Indonesia – RSPO: 100% (mill) & 87% (estates), and ISPO 100% (mill) & 87% (estates).
- Plantations and mills recorded an average emission of 0.582t CO_2 eq/dry mt CPO (-2% YoY) for FY21, which equates to 68.4% of GHG savings compared to fossil fuel. It is on track to meet its stated target of a 69% GHG savings by 2022.
- In FY21, traceability level to mills of its refineries is 100%, whilst traceability level to the plantation has improved to 78.9% (FY20: 72%). Its oleo division achieved 88% (FY20: 85%) traceability.

Material S issues

- Malaysian planters (including KLK) are heavily reliant on migrant workers and faced labour shortages for years. Rising minimum wage, calls for enhanced labour rights, and rising cost associated with hiring foreign workers are adding cost pressures. The industry needs to continuously innovate, mechanise and introduce higher yielding materials to keep unit cost low.
- As at 31 October 2022, KLK has no outstanding RSPO complaints involving local communities or environment.
- Introduced its Group Employee Grievance Redressal Policy in May 2017. All issues raised are fully disclosed in its Grievance Redressal List for transparency.
- The group stopped the use of paraquat since January 2017.
- Empowerment through education: KLK built and manages 81 learning facilities across MY (26), ID (54) and Liberia (1) which have benefited 18,942 students in FY20 (FY20: 17,452 students)

Key G metrics and issues

- As at 31 Oct 2022, there were 9 Board members comprising 67% or 6 Independent Non-Executive Directors (INED), 2 Executive Directors (ED), and 1 Non-Independent Non-Executive Director (NINED). 1 of the ED is the CEO while its Chairman is an INED.
- The Lee family collectively owns 47.8%-equity stake (as at 11 Oct 2022) in KLK; represented by 2 EDs, and 1 NINED on the Board. Besides the above 2 EDs, no other family members are identified as part of the senior management team.
- The Group CEO's total remuneration package for FY21 was 0.8% of core net profits (5-yr avg: 1.4%).
- Its Nomination Committee, and Remuneration Committee each comprise of 2 INED and 1 NINED, chaired by one of the INED.
- Its Audit and Risk Committee comprises 4 INED.
- Two of its INEDs have been Board members for more than 12 years, a departure from the recommended industry practice of (i) reclassifying them as NINED, and (ii) seeking shareholders' approval through the recommended two-tier voting process.
- There are currently 2 female Board members or 22% of Board (FY21: 13%). The Board will continue to actively source for suitable female candidates and thrives to achieve at least 30% female representation as and when there are appropriate candidates available.
- Women workers make up 20% of its plantation and oleo workforce (as palm oil industry can be physically demanding) whereas women make up 29% of management & non-management positions of its plantation and oleo divisions.
- BDO has been KLK's external auditor since FY19.
- The Board governs and leads KLK's overall responsibility in integrating sustainable economic, environmental and social initiatives throughout the Group's business strategies. The Board is supported by the Sustainability Steering Committee (SSC; formed in Sept 2015), headed by the CEO. The SSC is supported by Sustainability Working Committee.
- There have been no questionable related-party transactions for the recent past five years.

[1]***Risk Rating & Score*** - derived by Sustainalytics and assesses the company's exposure to unmanaged ESG risks. Scores range between 0 - 50 in order of increasing severity with low/high scores & ratings representing negligible/significant risk to the company's enterprise value, respectively, from ESG-driven financial impacts. [2]***Score Momentum*** - indicates changes to the company's score since the last update - a negative integer indicates a company's improving risk score; a positive integer indicates a deterioration. [3]***Controversy Score*** - reported periodically by Sustainalytics in the event of material ESG-related incident(s), with the impact severity scores of these events ranging from Category 0-5 (0 - no reports; 1 - negligible risks; ...; 5 - poses serious risks & indicative of potential structural deficiencies at the company).

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	Quantitative Parameters (Score: 28)					
	Particulars	**Unit**	**2019**	**2020**	**2021**	*** WIL SP (2021)**
E	Scope 1 GHG emissions	m tCO2e	N/A	N/A	N/A	7.9
E	Scope 2 GHG emissions	m tCO2e	N/A	N/A	N/A	4.3
E	**Total**	**m tCO2e**	N/A	N/A	N/A	**12.2**
E	Scope 3 GHG emissions	m tCO2e	N/A	N/A	N/A	N/A
E	**Total**	**m tCO2e**	N/A	N/A	N/A	**N/A**
E	GHG emissions intensity (Plantation)	tCO2e/t	0.64	0.59	0.58	N/A
E	GHG emissions intensity (Oleo)	tCO2e/t	0.24	0.25	0.26	N/A
E	Energy intensity (Plantation)	GJ/t	0.41	0.42	0.43	0.60
E	Energy intensity (Oleo)	GJ/t	3.67	3.83	3.80	N/A
E	Water usage (Plant'n)-m3/t of FFB processed	m3/t	1.37	1.32	1.38	1.43
E	Water usage (Oleo) - m3/t of prod vol	m3/t	1.67	1.43	1.30	N/A
E	Proportion of RSPO-certified plantation area	%	83%	85%	87%	79%
E	Total area set aside for conservation (incl.HCV)	ha	27,144	19,080	22,413	44,253
S	% of women in workforce	%	20.2%	21.4%	20.8%	23.0%
S	% of women in management (& non-mgnt) roles	%	27.8%	27.3%	28.6%	17.0%
S	Lost time injury freq. rate (Plant'n)- simple avg	No./ m hrs	14.8	45.9	41.2	5.67
S	Lost time injury freq. rate (Oleo) - simple avg	No./ m hrs	2.5	2.4	1.6	1.03
G	MD/CEO salary as % of reported net profit	%	1.41%	1.44%	0.61%	0.62%
G	Board salary (excl.CEO) as % of rep'd net profit	%	0.33%	0.26%	0.10%	0.12%
G	Independent directors on the Board	%	63%	63%	67%	50%
G	Female directors on the Board	%	13%	13%	22%	15%

Qualitative Parameters (Score: 50)

a) Is there an ESG policy in place and whether there is a standalone ESG committee or is it part of a risk committee?
Yes, it has Sustainable Policy and a Sustainability Steering Committee.

b) Is the senior management salary linked to fulfilling ESG targets?
Not explicit in the Annual Report 2021.

c) Does the company follow the task force of climate related disclosures (TCFD) framework for ESG reporting?
No.

e) Does the company have a mechanism to capture Scope 3 emissions - which parameters are captured?
No.

f) What are the 2-3 key carbon mitigation/water/waste management strategies adopted by the company?
In addition to zero-burning policy and no deforestation commitment, other commitments include conserving and improving the natural environment, protecting high carbon stock forests, High Conservation Value Areas, peatlands. Waste from its mills has been mostly recycled for use as fertilisers, and recovered for energy generations.

g) Does carbon offset form part of the net zero/carbon neutrality target of the company?
Yes, it is rehabilitating abandoned land, restoring forest areas, planting trees, etc. KLK also buys carbon credits for its European operations.

Target (Score: 100)		
Particulars	**Target**	**Achieved**
Targets upstream GHG emissions equivalent to 69% GHG savings compared to fossil fuel emissions by 2022	69%	68.4%
RSPO certification for newly acquired plantation (in FY22) within 3 years	100%	N/A
Medium term target: 6mt of oil per hectare	6.0	4.66
Plant 1,000,000 forest/fruit trees ('000)	1,000.0	352.2

Impact

NA

*** Peer Comparison**

We have benchmarked KLK's ESG metrics against that of its closest listed peer with publicly available comparable metrics - Wilmar International (WIL SP; Hold; TP: SGD4.27). The peer's ESG standing has been assessed separately.

ESG score	Weights	Scores	Final Score
Quantitative	50%	28	14
Qualitative	25%	50	13
Target	25%	100	25
Total			**52**

As per our ESG assessment, KLK has a well-established sustainable policy and social programme, but it needs to make further headway in improving its overall disclosure, targets and commitments. KLK's overall ESG score is **52**, which makes its ESG rating **above average** in our view (average ESG rating = 50; refer to Appendix I for our ESG Assessment Scoring).

Sime Darby Plantations Bhd

ct.ong@maybank-ib.com

Risk Rating & Score[1]	31.7 (High)
Score Momentum[2]	-2.2
Last Updated	13-Oct-2022
Controversy Score[3] (Updated: 12 Oct 2022)	4 - Employee incidents (human rights)

Business Model & Industry Issues

- SDPL is the world's largest upstream oil palm grower with 744,630 ha of land concession (about ~10.2x the size of Singapore) across Malaysia, Indonesia, and Papua New Guinea & Solomon Island of which 579,708 ha are planted with oil palm in FY21. It operates across 12 countries with some 80,000 employees. Such wide geographical exposure exposes SDPL to multiple ESG risks. Key risks include natural disasters, deforestation, labour practises, supply chain monitoring, and governance and corruption.
- SDPL is the world's largest producer of Certified Sustainable Palm Oil (CSPO) with a production of 2.15mt (FY21). Its estates are presently ~100% RSPO, MSPO, and ISPO certified.
- Given its' NDPE commitment, upstream palm oil growth going forward will be limited to oil yield enhancement with superior planting materials via R&D. Coupled with the increased scarcity of strategically located greenfield opportunities in the region, its long term growth will need to also emanate from brownfield estate acquisitions, and expansion of its downstream capacity and capabilities.
- **SDPL also scores slightly above-average in our proprietary scoring methodology (see next page) with an overall score of 52/100.**

Material E issues

- Its sustainability journey started 30 years ago with zero-burning pledge. Since 2015, SDPL has strived to meet and exceed its No Deforestation, No Peat, and No Exploitation (NDPE) commitments. The NDPE commitment is extended to all of its suppliers. SDPL has a Responsible Agriculture Charter on sustainability.
- SDPL has achieved 96% traceability to the mill level (2019: 95%), and 73.5% traceability to plantation (2019: 47.4%).
- In FY21, SDPL recorded an emissions intensity of 1.04tCO2-e/mt of CPO (+3% YoY). SDPL recently revised its targets to reduce carbon emission by 50% by 2030 (against 2009's baseline), previously 40%.
- It consumed 29.5m GJ of energy in FY21, of which 87% are from renewable sources (5-yr average: 85%) that are mainly sourced from biomass.

Material S issues

- During the COVID-19 pandemic, no employees were laid off. SDPL redoubled its efforts to make the employees' well-being its top priority, including supporting government initiatives to establish vaccination centres and promoting vaccination drives across its operations to ensure its workers and communities are protected. Over MYR10m was spent on COVID-19 emergency relief work.
- On 28 Jan 2022, SDPL was issued a Notice of Forced Labour Finding by the US Customs and Border Protection Agency, following a Withhold Release Order (WRO) issued on 30 Dec 2020. SDPL is working with internal stakeholders and independent experts to conduct assessments on the ground, to address any gaps and, where necessary, implement important new policies, structures and processes in order to continuously improve. It set side over MYR82m to reimburse hidden recruitment fees to more than 34,000 current and former foreign workers. Besides monetary compensation, SDPL has revised and developed a more robust system covering the entire process of appointing recruitment agents.
- Across all operations, SDPL built and operate 53 schools for children at its plantations and those from surrounding communities. It also provides transportation and ensure access to government-run and third-party schools. In Indonesia and Malaysia, it operates 42 kindergartens and 105 crèches (ie daycare centres).

Key G metrics and issues

- As at 30 Oct 2022, the Board consists of 10 members. The Board comprises 5 INEDs (Independent Non-Executive Directors), 4 non-independent non-executive directors (NINED) and 1 executive director (ED).
- Permodalan Nasional Bhd (PNB) which collectively owns 55.7%-equity stake (as at 30 June 2022) in SDPL has 3 nominee NINEDs on the Board, while EPF (with 13.6% equity stake) has 1 nominee NINED.
- The Group MD/ CEO's total remuneration package for FY21 was 0.2% of reported net profits (5-yr avg: 0.3%).
- SDPL has been audited by PwC the past five financial years.
- It has effective and largely independent board committees - namely (1) Governance & Audit Committee, (2) Risk Management Committee, (3) Nominating & Remuneration Committee, and (4) Sustainability Committee made up of 3 INEDs and 1 NINED. These committees are chaired by INEDs. SDPL also has a Board Tender Committee comprising 1 NINED (Chairman), and 3 INEDs.
- The Sustainability Committee is established to assist the Board in fulfilling its oversight responsibilities in relation to the SDPL's objectives, strategy, policies and practices pertaining to sustainability which comprise the following: (1) contributing to a better society; (2) combating climate change; and (3) delivering sustainable development.
- None of the INEDs has served the Board for more than 9 years.
- SDPL has 3 female directors which presently accounts of 30% board representation (FY21: 27%) following the retirement of 1 male INED in June 2022.
- There have been no questionable related-party transactions since listing in 2017. Nonetheless, as part of the internal rationalisation of Sime Darby Bhd (SIME MK) in 2017 which resulted in the de-merger and creation of three stand-alone pure play companies, SDPL had entered into several call option agreements with Sime Darby Property (SDPR MK) to provide SDPR with access to a pipeline of landbanks for future development purposes at the market values prevailing at the time of the exercise of the call options.

[1]*Risk Rating & Score* - derived by Sustainalytics and assesses the company's exposure to unmanaged ESG risks. Scores range between 0 - 50 in order of increasing severity with low/high scores & ratings representing negligible/significant risk to the company's enterprise value, respectively, from ESG-driven financial impacts. [2]*Score Momentum* - indicates changes to the company's score since the last update - a negative integer indicates a company's improving risk score; a positive integer indicates a deterioration. [3]*Controversy Score* - reported periodically by Sustainalytics in the event of material ESG-related incident(s), with the impact severity scores of these events ranging from Category 0-5 (0 - no reports; 1 - negligible risks; ...; 5 - poses serious risks & indicative of potential structural deficiencies at the company).

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	Quantitative Parameters (Score: 35)					
	Particulars	**Unit**	**2019**	**2020**	**2021**	*** WIL SP (2021)**
E	Scope 1 GHG emissions	m tCO2e	N/A	2.59	2.65	7.9
	Scope 2 GHG emissions	m tCO2e	N/A	0.17	0.16	4.3
	Total	**m tCO2e**	**N/A**	**2.76**	**2.81**	**12.2**
	Scope 3 GHG emissions	m tCO2e	N/A	N/A	N/A	N/A
	Total	**m tCO2e**	**N/A**	**N/A**	**N/A**	**N/A**
	GHG intensity (Scope 1 and 2) - Upstream	tC2e/t	1.12	1.01	1.04	N/A
	Energy usage	m GJ	31.5	30.9	29.5	194.1
	Share of renewable energy use in operations	%	82%	86%	87%	57%
	Wastewater consumption	m m3	25.2	21.6	16.9	98.8
	Proportion of RSPO-certified plantation area	%	98%	99%	99%	79%
	Total area set aside for conservation	hectare	47,805	46,502	46,892	44,253
S	% of women in workforce (excl. PNG&SI, & UK)	%	19.1%	19.4%	20.8%	23.0%
	% of women in management roles	%	25.2%	25.2%	27.1%	17.0%
	Lost time injury frequency (LTIF) rate	No./m hrs	11.3	8.4	7.3	3.75
	Severity rate (lost days per accident - LDA)	LDA	3.7	4.2	5.0	N/A
G	MD/CEO salary as % of reported net profit	%	-0.5%	0.3%	0.2%	0.62%
	Board salary as % of reported net profit	%	-2.1%	0.3%	0.2%	0.12%
	Independent directors on the Board	%	55%	55%	55%	50%
	Female directors on the Board	%	18%	27%	27%	15%

Qualitative Parameters (Score: 83)

a) Is there an ESG policy in place and whether there is a standalone ESG committee or is it part of a risk committee?

Yes, it has a Sustainability Policy and a Sustainability Committee that is supported by a Sustainability Advisor. Protecting the rights of local and migrant workers is presently a top priority. SDPL is cooperating with the US CBP and taking proactive measures to keep its operations free of forced labour and other forms of exploitation.

b) Is the senior management salary linked to fulfilling ESG targets?

Yes. In FY22, the Board approved an ESG scorecard that carries as much weight as the operational scorecard.

c) Does the company follow the task force of climate related disclosures (TCFD) framework for ESG reporting?

Yes

d) Does the company have a mechanism to capture Scope 3 emissions - which parameters are captured?

No but it has begun mapping its most material Scope 3 emissions since 2021 across its supply chain and targets to start disclosing them in 2023.

e) What are the 2-3 key carbon mitigation/water/waste management strategies adopted by the company?

In addition to zero-burning policy and no deforestation commitment, other initiatives implemented include reforestation and large-scale tree planting, hotspot and fire management, regenerative agriculture through integrated pest management and companion planting. It is also accelerating its biogas plants programme to utilise methane as a renewable energy. Waste from its mills will be increasingly recovered for energy generation and/or converted into fertilisers. For its downstream operations, among others, it plans to reuse effluent water in cooling waters.

f) Does carbon offset form part of the net zero/carbon neutrality target of the company?

Yes. Among initiatives taken include conservation, restoration, reforestation, rehabilitation, and tree-planting.

Target (Score: 50)		
Particulars	**Target**	**Achieved**
50% reduction (previously 40%) in Scope 1 & 2 GHG (upstream) emissions by 2030 (tCO2e/t)	0.53	1.04
Targets 68 biogas plants by 2030 (5 under construction in 2022)	68	12
Commits to a net zero strategy. It launched a roadmap to net zero, with plans to disclose Scope 3 emissions in 2023, and more detailed and quantitative scenario analysis disclosures.	Net Zero	N/A
100% traceability to plantation across its supply chain by 2025	100%	73.5%
Zero fatality target (yearly target)	0	1
Double oil yield (t/ha) by 2050 via breakthrough innovations	8.0	4.0

Impact

NA

*** Peer Comparison**

We have benchmarked SDPL's ESG metrics against that of its closest listed peer with publicly available comparable metrics - Wilmar International (WIL SP; Hold; TP: SGD4.27). The peer's ESG standing has been assessed separately.

ESG score	Weights	Scores	Final Score
Quantitative	50%	35	18
Qualitative	25%	83	21
Target	25%	50	13
Total			**52**

As per our ESG assessment, SDPL has an established framework on sustainability policy. It has recently enhanced its ESG policies, commitments and practices, especially the "S" part. SDPL's overall ESG score is **52**, which makes its ESG rating **above average** in our view (average ESG rating = 50; refer to Appendix I for our ESG Assessment Scoring).

PROPERTY & REITS

Sunway Bhd

weisum@maybank-ib.com

Risk Rating & Score[1]	13.6 (Low)
Score Momentum[2]	0.0
Last Updated	19 Oct 2021
Controversy Score[3] (Updated: 08 Jul 2022)	0 - No reported incidents

Business Model & Industry Issues

- Sunway Group (SWB) is one of the largest conglomerates in Malaysia. Its businesses include property development & investment, construction, building materials, quarry, trading and manufacturing, healthcare and leisure spanning over 11 countries with 10,889 employees in FY21. Its geographical spread naturally exposes SWB to multiple ESG risks including bribery and corruption.
- To ensure better corporate governance, Sunway has adopted an augmented Anti-Bribery and Corruption policy and has established a whistleblowing policy and related procedures. Supplier Code of Conduct is also communicated to suppliers in all of SWB's operations.
- SWB has been a constituent of the ESG-themed FTSE4Good Bursa Malaysia Index for seven consecutive years as well as the FTSE4Good Bursa Malaysia Syariah Index, which was launched in July 2021.
- **SWB also scores above-average in our proprietary scoring methodology (see next page) with an overall score of 74/100.**

Material E issues

- In 2021, SWB continued to invest in renewable energy sourced from sola photovoltaic (PV) panels and generated 8,940MWh of clean energy, equivalent to powering up 763 homes for one year.
- SWB invested in a MYR18m water treatment plant in 2019. The treatment plant recycles water from the city's lakes to produce potable drinking water, enabling SWB to reduce water consumption cost. In 2021, the treatment plant produced 949,99m^3 of water (+76% YoY).
- SWB managed to divert 6% of the waste (-801 tonnes) from landfills in 2021. It aims to divert 40% of waste from landfills by 2030. SWB also aims to achieve Net Zero Carbon Emissions by 2050.

Material S issues

- SWB places a strong importance on gender diversity and opportunities for youth. Of its 10,889 workforce in FY21, 31%/18% of SWB's employees are female executives/non executives.
- SWB strives to empower and upskill its workforce through a wide array of learning platforms. It achieved 33 training hours in FY21 each staff (FY20: 20.2 hours, or +63% YoY).
- During the pandemic, Sunway sponsored rental-free spaces as vaccination centres.
- SWB teamed up with NGOs to sponsor close to MYR340k worth of aid for affected communities during the floods in Dec 2021.
- The Autsome (Autism is Awesome) Initiative by Sunway Putra Mall made it the first autism-friendly mall in Malaysia, impacting 1,126 registered members.
- SWB sponsored seven laptops and one year's free WIFI for 230 children in orphanages in Perak during the Chinese New Year Cheer programme in 2021.

Key G metrics and issues

- There are 10 members on SWB's board comprising of 4 Non-independent Executive Director (NIED; including Executive Chairman) and 6 Independent Non-Executive Director (INED).
- In 2021, female representation on the Board was 36%.
- All four Board committees (audit, nomination, remuneration, risk management) are chaired by and comprised solely of independent directors.
- Total directors' remuneration is 4.5% of FY21 group net profit (FY20: 4.2%).
- Messrs BDO PLT has been the group's external auditor since FY15.
- SWB has recurring related-party transactions (RPTs) with Sunway REIT (SREIT MK), mainly pertaining to operations (i.e. rentals, utilities, interests and services). Over the past three years, there were two RPTs namely: 1) the disposal of *The Pinnacle Sunway* to SREIT for a cash consideration of MYR450m. The selling price was appraised by an independent valuer, which was jointly-appointed by both parties and 2) SWB had disposed selected land and buildings in Bandar Sunway to SREIT for MYR550m cash.

  SWB also has recurring related-party transactions (RPTs) with Sunway Construction Group (SCG MK), where building works were awarded to SCG. In June 2021, 46% of SCG's outstanding orderbook was derived from Sunway Group.

[1]***Risk Rating & Score*** - derived by Sustainalytics and assesses the company's exposure to unmanaged ESG risks. Scores range between 0 - 50 in order of increasing severity with low/high scores & ratings representing negligible/significant risk to the company's enterprise value, respectively, from ESG-driven financial impacts. [2]***Score Momentum*** - indicates changes to the company's score since the last update - a negative integer indicates a company's improving risk score; a positive integer indicates a deterioration. [3]***Controversy Score*** - reported periodically by Sustainalytics in the event of material ESG-related incident(s), with the impact severity scores of these events ranging from Category 0-5 (0 - no reports; 1 - negligible risks; ...; 5 - poses serious risks & indicative of potential structural deficiencies at the company).

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	Quantitative Parameters (Score: 47)					
	Particulars	Unit	2019	2020	2021	GAM MK (2021)
E	Scope 1 emissions	k tCO2e	51.7	52.0	53.8	3.0
	Scope 2 emissions	k tCO2e	48.7	43.1	41.1	14.8
	Total	**k tCO2e**	**100.4**	**95.1**	**94.9**	**17.8**
	Scope 3 emissions	k tCO2e	50.4	45.5	41.4	NA
	Total	**k tCO2e**	**150.8**	**140.5**	**136.3**	**NA**
	GHG intensity (Scope 1 and 2)	tCO2e/rev RMm	21.0	29.6	25.5	5.1
	Energy intensity (managed assets)	MWh/sq. m	0.19	0.15	0.13	NA
	Water intensity (managed assets)	cu. m/sq. m	2.68	1.88	1.63	NA
	Treated + harvested water as % of consumption	%	N/A	14	29	NA
	Waste diverted from landfill	%	4	4	6	NA
	Share of renewable energy use	%	1	3	3	NA
S	Proportion of women in the workforce	%	47	49	48	35
	Women in Sr management	%	29	27	27	NA
	Proportion of locals as new hires	% (avg)	95	92	97	NA
	Lost time injury frequency (LTIF) rate	number (avg)	0	0	19	2
	Training hours per employee	number	31	20	33	NA
G	MD/CEO salary as % of reported net profit	%	NA	NA	NA	0.6
	Board salary as % of reported net profit	%	6.6	4.2	4.5	0.9
	Independent directors on the Board (tenure <10 yrs)	%	60	64	64	57
	Female directors on the Board	%	22	30	36	42

Qualitative Parameters (Score: 100)

a) Is there an ESG policy in place and whether there is a standalone ESG Committee or is it part of Risk committee?
Yes - it has an established sustainability framework/handbook and a sustainability committee that is led by the Group President and assisted by a non-independent Executive Director (ED) and two independent non-EDs.

b) Is the senior management salary linked to fulfiling ESG targets?
Yes

c) Is the company a signatory of or adheres to the UN Global Compact (UNGC) Initiative and has adopted TCFD reporting?
Yes

d) Any major controversies that the company is involved in which has impacted its reputation?
No

e) What are the 2-3 key carbon mitigation/water/waste management strategies adopted by the company?
Energy efficiency: Sunway has invested in solar power generation since 2018 and has generated 18,860 MWh of clean energy. In 2021 alone, 8,940 MWh or 3% was generated from solar panels as per target for the year. Water mgmt: Invested in an MYR18m water treatment plant in 2019. The treatment plant recycles water from the city's lakes to produce potable drinking water, enabling Sunway to reduce its water consumption cost. Waste mgmt: Reuses and recycles paper and wooden pallets for packing materials and hydraulic oil from machinery for construction sites.

f) Does carbon offset form part of the net zero/carbon neutrality target of the company?
No, but will use to achieve net zero target.

Target (Score: 100)

Particulars	Target	Achieved
Electricity from renewable energy sources by 2030	25%	3%
Waste diverted from landfills by 2030	40%	6%
To reduce overall water intensity by 2030 (Baseline year: 2015)	10%	14%
All industrial property sites to be ISO 14001:2015 (Environmental Mgmt Systems) - certified by 2030	100%	100%
Zero tolerance for/against avoidable work-related injuries among SWB staff and contrators	0%	4%
Reduction in residual CO2 emission by 2030 by	45%	N/A
Net Zero by	2050	N/A

Impact

NA

*** Peer Comparison**

We have benchmarked SWB's ESG metrics against that of its closest listed peer with publicly available comparable metrics - Gamuda Bhd (GAM MK; Buy; TP: MYR4.40). The peer's ESG standing has been assessed separately.

ESG score	Weights	Scores	Final Score
Quantitative	50%	47	24
Qualitative	25%	100	25
Target	25%	100	25
Total			**74**

As per our ESG assessment, SWB has an established framework, internal policies, and tangible mid/long-term targets but needs to make headway in improving its quantitative "E" and "S" metrics YoY. SWB's overall ESG score is **74**, which makes its ESG rating **above average** in our view (average ESG rating = 50; refer to Appendix I for our ESG Assessment Scoring).

KLCCP Stapled Group Bhd

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Risk Rating & Score[1]	N/A
Score Momentum[2]	N/A
Last Updated	N/A
Controversy Score[3]	N/A

Business Model & Industry Issues

- KLCCP Stapled Group, which comprises of KLCC REIT and KLCCP (KLCC Property Holdings Berhad), invests and manages a portfolio of diversified, office-focused properties. KLCCP draws down on debt facilities to invest in real estates, undertake asset enhancement initiatives and/or property development – where such activities are closely regulated by the Securities Commission of Malaysia. Being a Shariah-compliant security, KLCCP also adheres to objective selections of debt facilities and tenants, amongst others.
- As owners and managers of commercial real estates. KLCCP's ESG strategies are comparable to its peers within the sector, namely on reducing its assets' environmental impact relating to electricity usage, water usage, carbon emission and waste management. PETRONAS has a high involvement in KLCCP with fair treatment of minority shareholders' interests.
- KLCCP was included in the FTSE4Good Bursa Malaysia Index and Emerging Index between 2016-2020, while being in the top 8th percentile among its sector peers in the FTSE4Good Index Series in 2020.
- **KLCCP also scores above-average in our proprietary scoring methodology (see next page) with an overall score of 61/100.**

Material E issues

- Two key assets, the PETRONAS Twin Towers and Menara 3 PETRONAS (aggregate of 81% of office portfolio's NLA), have received Green Building Index (GBI) Gold and Silver Ratings respectively in 2019.
- Suria KLCC has contributed to total electricity savings of 16.8m kWh since 2014 – translating into MYR1.8m in cost savings and CO2 reduction of approx. 360,000 kg p.a.
- KLCCP maintains its 5-year target (2019-2023) for its office/retail/hotel assets to reduce carbon emission by 8/18/3%, water consumption by 1/7/20% and energy consumption by 7/5/2%, amongst others.
- KLCCP has successfully eliminated 100% of single-use plastic in its hotel operations in FY21.

Material S issues

- KLCCP is committed to provide opportunities and nurture local talent by promoting talent retention within the organisation. 97% of employee underwent training programmes and average training hours per employee is 12 hours.
- Has high gender diversity with 41% of women senior management leaders and 39% of overall women representation in its workforce.
- In FY21, KLCCP spent MYR128.3m on community investment and retail tenant assistance.
- Mandarin Oriental focuses on food and beverage suppliers in respect to compliance to food safety requirements. This is in line with its ISO 22000 certification (Food Safety Management and Halal Assurance Management System). This also include supplier audits for local F&B suppliers.
- During the year, it introduce the KLCC Group Emerging Leadership Programme (KELPro 2.0), a long-term program to prepare junior to mid-level talents for future leadership roles.

Key G metrics and issues

- Strong interest alignment between KLCCP and KLCC REIT with a common board and management. KLCC REIT is managed by KLCC REIT Management Sdn Bhd, a wholly-owned subsidiary of KLCCP.
- KLCCP's ultimate parent and largest shareholder is PETRONAS (75%), which in turn, is the sole tenants for PETRONAS Twin Towers, Menara 3 PETRONAS and Menara Dayabumi. These assets contributed 59% to KLCCP's FY21 total investment property value.
- KLCCP and KLCCRM's Boards comprises of 9 directors, of which 6 are Independent, Non-executive Directors, 1 Executive Director and 2 Non-Independent Non-executive Directors (incl. the Chairman of the Board) – having 56% of female representation. The positions of CEO and Chairman of the Board are held by separate individuals.
- The Board has a policy which limits the tenure of its Independent Directors up to 9 years.
- FY21: Total of MYR1.1m (0.2% of KLCCP's FY21 PBT) was paid to the board members of KLCCP as Director's Remuneration.
- Management fees structure of KLCC REIT: (i) Base fees of 0.3% p.a. of total asset value, and (ii) Performance fees of 3.0% p.a. of NPI. These are comparable to its peers. There are no acquisition fees.
- KLCC REIT: Payout ratio has consistently remained above the 90% of distributable income threshold for tax transparency.
- In 2017, PETRONAS demonstrated support for KLCCP's office leasing by taking up the remaining 40% of lease space in Menara ExxonMobil. There is no notable/major key issues on the treatment of minority shareholders (i.e. voting)
- KLCCP adopts the No Gift Policy and Whistle Blowing Policy and adhere to the Anti Bribery and Corruption Policy and Guidelines (ISO 37001:2016).

[1]***Risk Rating & Score*** - derived by Sustainalytics and assesses the company's exposure to unmanaged ESG risks. Scores range between 0 - 50 in order of increasing severity with low/high scores & ratings representing negligible/significant risk to the company's enterprise value, respectively, from ESG-driven financial impacts. [2]***Score Momentum*** - indicates changes to the company's score since the last update – a negative integer indicates a company's improving risk score; a positive integer indicates a deterioration. [3]***Controversy Score*** - reported periodically by Sustainalytics in the event of material ESG-related incident(s), with the impact severity scores of these events ranging from Category 0-5 (0 - no reports; 1 - negligible risks; ...; 5 - poses serious risks & indicative of potential structural deficiencies at the company).

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	Quantitative Parameters (Score: 47)					
	Particulars	**Unit**	**2019**	**2020**	**2021**	**SREIT MK (2021)**
E	Scope 1 GHG emissions	tCO2e	3,838	2,662	1,578	52
	Scope 2 GHG emissions	tCO2e	106,631	103,214	81,517	12,622
	Total	**tCO2e**	**110,469**	**105,876**	**83,095**	**12,674**
	Scope 3 GHG emissions	tCO2e	N/A	N/A	N/A	82,287
	Total	**tCO2e**	**N/A**	**N/A**	**N/A**	**94,961**
	GHG intensity (Scope 1 and 2)	tCO2e/sq ft	9.22	8.84	6.94	0.15
	Energy intensity	kWh/m2	90.13	79.54	91.70	169.90
	Share of renewable energy usage	%	0.51%	0.54%	0.46%	1.40%
	Annual water use intensity	m3/sq ft	0.10	0.08	0.06	0.16
	Waste diverted away from landfill	%	63.0%	60.7%	64.0%	5.0%
	Cases of non-compliance	number	N/A	N/A	N/A	0
	Green certification of properties	%	29%	29%	29%	17%
S	% of women in workforce	%	38%	37%	39%	78%
	% of women in management roles	%	11%	11%	12%	73%
	Lost time injury frequency rate (LTIFR)	rate	0.47	0.78	0.00	1.72
	Training hours/employee	hours	35.0	26.0	12.0	55.0
G	Independent directors on the Board (tenure <10 years)	%	100%	100%	100%	50%
	Female directors on the Board	%	29%	43%	56%	43%
	Distribution to shareholders	%	94%	98%	95%	92%

Qualitative Parameters (Score: 50)

a) Is there an ESG policy in place and whether there is a standalone ESG committee or is it part of a risk committee?
It has a sustainability framework in place. Sustainability is governed by the Board, CEO, and Sustainability Steering Committee which comprises of heads of major businesses along with a sustainable working committee which implements the framework.

b) Is the senior management salary linked to fulfilling ESG targets?
No.

c) Does the company follow the task force of climate related disclosures (TCFD) framework for ESG reporting?
In FY21, it conducted an assessment of its readiness towards supporting the task force on climate related financial disclosures (TCFD) framework.

d) Does the company do green leasing or has plans to start green leasing or participate in GRESB real estate assessment?
The company has received sustainability rating for a couple of properties.

e) What are the 2-3 key carbon mitigation/water/waste management strategies adopted by the company?
Under its 5-Year Sustainability Roadmap (2019 - 2023), it targets to reduce carbon emission, energy consumption, water usage, waste usage at all its operation segments (i.e. office, retail and hotel) e.g. through LED light replacement, usage of renewable energy, 20% running capacity threshold for hot water calorifier, extraction fans, and water pumps, 100% removal of single-use plastic in hotel operations etc.

f) Does carbon offset form part of the net zero/carbon neutrality target of the company?
No.

Target (Score: 100)

Particulars	**Target**	**Achieved**
5-year target to reduce carbon emission:		
Office	-8%	-28%
Retail	-18%	-12%
Hotel	-3%	3.4%
5-year target to reduce energy consumption:		
Office	-6.8%	-1.9%
Retail	-5%	140%
Hotel	-1.8%	-11.3%
Removal of single-use plastic	100%	100%
Female representation on Board	30%	56%

Impact

NA

*** Peer Comparison**

We have benchmarked KLCCP's ESG metrics against that of its closest listed peer with publicly available comparable metrics - Sunway REIT (SREIT MK; Hold; TP: MYR1.46). The peer's ESG standing has been assessed separately.

ESG score	**Weights**	**Scores**	**Final Score**
Quantitative	50%	47	24
Qualitative	25%	50	13
Target	25%	100	25
Total			**61**

KLCCP's overall ESG score is **61**, which makes its ESG rating **above average** in our view (average ESG rating = 50; refer to Appendix I for our ESG Assessment Scoring). As per our ESG assessment, KLCCP has established its internal ESG policies. Increase in quantitative and qualitative metrics could improve its score.

Sunway REIT Bhd

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Risk Rating & Score[1]	15.0 (Low)
Score Momentum[2]	0.0
Last Updated	30 Jul 2021
Controversy Score[3] (Updated: 18 Jan 2022)	0 - No reported incidents

Business Model & Industry Issues

- Sunway REIT invests and manages a portfolio of diversified properties. Sunway REIT draws down on debt facilities to invest in real estates, undertake asset enhancement initiatives and/or property development where such activities are closely regulated by the Securities Commission of Malaysia.
- Sunway REIT aims to achieve Net Zero Carbon Emissions by 2050. It has established 2030 Sustainability Goals and Targets, where it sets four goals and eight targets to be achieve by 2030. The four goals are; (1) transforming its portfolio to low-carbon assets, (2) advocating a responsible value chain, (3) investing in community inclusivity, and (4) respecting ethical principles. The targets include targets for energy and water usage, waste generation and supply chain.
- It established an Internal Carbon Pricing framework wherein a cost of RM15 per tonne is imposed on CO2e emitted above the Management-approved limit for each business segment. It also target to source at least 25% of electricity from renewable energy source by 2030.
- **SREIT also scores above-average in our proprietary scoring methodology (see next page) with an overall score of 71/100.**

Material E issues

- Has three green-certified buildings, which are The Pinnacle Sunway, Sunway Carnival Shopping Mall and Sunway Clio Hotel.
- Targets for more green-certified properties, including expansion of Sunway Carnival Mall, Sunway Putra Mall and Sunway Resort Hotel.
- In FY21, their portfolio's assets consumed: (i) 162,288 MWh of electricity (+9% YoY), (ii) 1.606m m3 of water (-0.3% YoY), and (iii) emitted 96,974 tonnes (-17% YoY) of CO2e.
- Installed the Building-Integrated Photovoltaic (PV) solar panels and rainwater harvesting system (RWHS) at Sunway Pyramid Shopping Mall to reduce electricity and water consumption.
- They avoided 2,013 tonnes of CO2e and diverted 5% of wastes from landfills through various waste diversion and energy -and emission-saving initiatives in FY21.

Material S issues

- Sunway REIT has high gender diversity with 73% of women senior management leaders and 77% of overall women representation in its workforce. 100% of employees are local talents.
- In FY21, there were no fatalities and no high-consequence work-related injuries reported, but there were 8 recordable work-related injuries (FY20: 6), mainly due to slips, trips and missteps.
- In FY21, there were no incidents and grievances relating to discrimination, child labour and forced labour reported.
- It spent MYR16,754 in training and development of employees, with average training hours per employee is 55 hours (FY20: 26 hours).
- It establishes a Donations, Sponsorships and Corporate Responsibility Policy as its commitment towards contributing to the communities.

Key G metrics and issues

- Sunway REIT's Board has 7 directors, of which there is 1 Non-Independent Executive Director, 1 Senior Independent Non-Executive Director (INED), 3 Independent Non-Executive Directors, and 2 Non-Independent Non-Executive Directors (NINEDs). 57% of their board is made up of Independent Directors.
- The board has a diverse mix, with female representation at 43%, and having 43% of the board below the age of 60, 14% between ages of 61 – 70, and 43% above 70.
- In FY21, it capped the tenure for Independent Directors to 12 years, which will take effect in FY22.
- Sunway REIT was audited by BDO PLT since 2016.
- Its Audit, and Nomination & Remuneration Committees are chaired by Independent Non-Executive Directors, and its Risk Management Committee is chaired by a Non-Independent, Non-Executive Director
- Mr Elvin (Senior INED) holds a direct interest of 90,000 units in Sunway, and Ms Sarena Cheah (NINED) holds 1,400m units of indirect interest
- Remuneration for Non-Executive Directors were MYR106k and MYR83k in total for Chairman and members respectively (<0.1% of FY21 net profit). Meanwhile, remuneration for Executive Director and Senior Management comprises of fixed components, variable and benefits components.
- Management fees structure: (i) Base fees of 0.3% p.a. of total asset value, (ii) Performance fees of 3.0% p.a. of NPI, and (iii) Acquisition fees of 1.0% of acquisition price. The base and performance fees are comparable to their peers
- Payout ratio has consistently remained above the minimum 90% of distributable income threshold for tax transparency.

[1]***Risk Rating & Score*** - derived by Sustainalytics and assesses the company's exposure to unmanaged ESG risks. Scores range between 0 - 50 in order of increasing severity with low/high scores & ratings representing negligible/significant risk to the company's enterprise value, respectively, from ESG-driven financial impacts. [2]***Score Momentum*** - indicates changes to the company's score since the last update - a negative integer indicates a company's improving risk score; a positive integer indicates a deterioration. [3]***Controversy Score*** - reported periodically by Sustainalytics in the event of material ESG-related incident(s), with the impact severity scores of these events ranging from Category 0-5 (0 - no reports; 1 - negligible risks; ...; 5 - poses serious risks & indicative of potential structural deficiencies at the company).

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	Quantitative Parameters (Score: 50)					
	Particulars	**Unit**	**2019**	**2020**	**2021**	**KLCCSS MK (2021)**
E	Scope 1 GHG emissions	tCO2e	0	80	52	1,578
	Scope 2 GHG emissions	tCO2e	0	0	12,622	81,517
	Total	**tCO2e**	**0**	**80**	**12,674**	**83,095**
	Scope 3 GHG emissions	tCO2e	124,161	116,466	82,287	N/A
	Total	**tCO2e**	**124,161**	**116,546**	**94,961**	**N/A**
	GHG intensity (Scope 1 and 2)	tCO2e/sq ft	N/A	N/A	0.15	6.94
	Energy intensity	kWh/m2	241.84	221.65	169.90	91.70
	Share of renewable energy usage	%	0.16%	0.56%	1.40%	0.46%
	Annual water use intensity	m3/sq ft	0.25	0.24	0.16	0.06
	Waste diverted away from landfill	%	4.0%	4.6%	5.0%	64.0%
	Cases of non-compliance	number	N/A	0	0	N/A
	Green certification of properties	%	6%	6%	17%	29%
S	% of women in workforce	%	82%	82%	78%	39%
	% of women in management roles	%	77%	77%	73%	12%
	Lost time injury frequency rate (LTIFR)	rate	N/A	3.47	1.72	0.00
	Training hours/employee	hours	24.0	26.0	55.0	12.0
G	Independent directors on the Board (tenure <10 years)	%	100%	100%	50%	100%
	Female directors on the Board	%	43%	43%	43%	56%
	Distribution to shareholders	%	100%	100%	92%	95%

Qualitative Parameters (Score: 83)

a) Is there an ESG policy in place and whether there is a standalone ESG committee or is it part of a risk committee?

Sustainability Policy is in place. A Sustainability Committee comprising Board Members has been formed. The Sustainability Committee is supported by a Sustainability Officer and a Sustainability Working Group (SWG) to embed sustainability considerations and practices.

b) Is the senior management salary linked to fulfilling ESG targets?

Yes - For FY22, KPIs linking the remuneration for senior executives to climate change performance and ESG performance have been introduced.

c) Does the company follow the task force of climate related disclosures (TCFD) framework for ESG reporting?

Yes. In FY21, it became an official supporter of the Task Force on Climate-Related Financial Disclosures (TCFD) and disclose our climate risks according to the recommendations of the TCFD.

d) Does the company do green leasing or has plans to start green leasing or participate in GRESB real estate assessment?

The company has few properties wherein Sustainable Building Certification has been achieved. It implements Green Lease Programme in 2022 to encourage tenants to lower their environmental footprint and promote responsible resource management.

e) What are the 2-3 key carbon mitigation/water/waste management strategies adopted by the company?

Among its initiatives are lighting replacement programmes to install more energy-efficient LEDs, rainwater harvesting system to irrigate plants and for cleaning purposes, ongoing waste collection and segregation for composting where possible.

f) Does carbon offset form part of the net zero/carbon neutrality target of the company?

No.

Target (Score: 100)

Particulars	**Target**	**Achieved**
To achieve net zero carbon emissions by	2050	N/A
Electricity from renewable energy source by 2030	25%	1.34%
For managed and industrial properties to reduce emission intensity per year by 2030 by	3.5%-4%	N/A
Waste diverted from landfill by 2030	40%	5%

Impact

NA

*** Peer Comparison**

We have benchmarked SREIT's ESG metrics against that of its closest listed peer with publicly available comparable metrics - KLCC Property (KLCCSS MK; Hold; TP: MYR6.72). The peer's ESG standing has been assessed separately.

ESG score	Weights	Scores	Final Score
Quantitative	50%	50	25
Qualitative	25%	83	21
Target	25%	100	25
Total			**71**

SREIT's overall ESG score is **71**, which makes its ESG rating **above average** in our view (average ESG rating = 50; refer to Appendix I for our ESG Assessment Scoring). As per our ESG assessment, SREIT has established its internal ESG policies. Increase in quantitative and qualitative metrics could improve its score.

IGB REIT Bhd

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Risk Rating & Score[1]	18.3 (Low)
Score Momentum[2]	0.0
Last Updated	30 Jul 2021
Controversy Score[3] (Updated: 11 Jan 2022)	0 - No reported incidents

Business Model & Industry Issues

- IGB REIT invests and manages a portfolio of retail-focused properties. IGB REIT draws down on debt facilities to invest in real estates, undertake asset enhancement initiatives and/or property development where such activities are closely regulated by the Securities Commission of Malaysia.
- As owner and manager of commercial real estates, IGB REIT's ESG strategies are comparable to its peers within the sector, namely on reducing its assets' (i.e. Mid Valley Megamall and The Gardens Mall) environmental impact relating to electricity usages, water usage, and waste management.
- Its parent/sponsor, IGB Berhad, is also the largest unitholder and potentially contributing to IGB REIT's pipeline of retail assets in future. This is common among M-REITs. Elsewhere, there were no notable governance issues relating to IGB Berhad and other related parties.
- **IGBREIT also scores above-average in our proprietary scoring methodology (see next page) with an overall score of 31/100.**

Material E issues

- IGBREIT recorded 18% YoY reduction in water consumption to 456,097 cubic metres in FY21.
- In FY21, it installed rainwater harvesting systems to store rainwater for operational use. It has harvested 1,613,000 litres of rainwater, which was then used for all external watering.
- Volume of disposed waste fell 27% YoY to 2,492 tonnes in FY20, while volume of recyclable materials collected also declined 40% YoY to only 207 tonnes. Ongoing initiatives include all rubbish bins have a separate section for recyclable materials, and paper towels have been removed from the toilets.
- Electricity consumption dropped 11% YoY to 55.5m kWh in FY21.

Material S issues

- IGB REIT prioritises the health and safety of their tenants, shoppers and employees. IGB REIT also complies with the Occupational Safety and Health Act by conducting regular safety audits, trainings and inspections.
- Reported 35 incident cases in FY21 (FY20: 38). Majority of injury-related incidents were sustained on escalators (i.e. slip and falls) and 11 motor vehicle accident/property damage incident cases.
- IGB REIT has been continuously supporting the communities and those in needs, by providing donations and organising activities/initiatives with charitable organisations.

Key G metrics and issues

- IGB REIT's parent and major unitholder, IGB Berhad (IGBB MK, Not Rated) holds 49% in IGB REIT. However, there were no notable governance issues, i.e. pertaining to asset acquisition/disposal.
- The Board comprises of 9 members, where 4 are Independent Non-Executive Directors, including the Chairman. Female representation is 33% (3 Directors). The positions of CEO and Chairman of the Board are held by separate individuals.
- Remuneration (FY21): In aggregate of 9 Directors, total was MYR6.1m or 3% of FY21 net profit, of which, salary and bonus (including EPF contributions) were MYR5.1m or 2.5% of net profit. Specifically, the remuneration for the Managing Director was MYR4.3m or 2.2% of net profit.
- The Board has a policy which limits the tenure of its Independent Directors to 9 years.
- Management fees structure: (i) Base fees of up to 1.0% p.a. of total asset value, (ii) Performance fees of 5.0% p.a. of NPI, and (iii) Acquisition fees of 1.0% of transaction value. The base and performance fees are comparable to their peers.
- Payout ratio has consistently remained above the minimum 90% of distributable income threshold for tax transparency.
- All recurrent related party transactions (RRPT) are reviewed by the board (via Audit Committee) on quarterly basis. FY21 RRPTs with IGB Berhad amounted to MYR38.9m – relating to leasing, provision/receipt of utilities-related items, maintenance, ICT services and management fees (MYR29.2m) – not exceeding the estimated value of MYR70m by 10% under the mandate.
- PricewaterhouseCoopers PLT (PwC) has been the external auditor of IGB REIT since listing in 2012.

[1]***Risk Rating & Score*** - derived by Sustainalytics and assesses the company's exposure to unmanaged ESG risks. Scores range between 0 - 50 in order of increasing severity with low/high scores & ratings representing negligible/significant risk to the company's enterprise value, respectively, from ESG-driven financial impacts. [2]***Score Momentum*** - indicates changes to the company's score since the last update - a negative integer indicates a company's improving risk score; a positive integer indicates a deterioration. [3]***Controversy Score*** - reported periodically by Sustainalytics in the event of material ESG-related incident(s), with the impact severity scores of these events ranging from Category 0-5 (0 - no reports; 1 - negligible risks; ...; 5 - poses serious risks & indicative of potential structural deficiencies at the company).

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Quantitative Parameters (Score: 20)						
	Particulars	Unit	2019	2020	2021	SREIT MK (2021)
E	Scope 1 GHG emissions	tCO2e	N/A	N/A	N/A	52
	Scope 2 GHG emissions	tCO2e	N/A	N/A	N/A	12,622
	Total	**tCO2e**	**N/A**	**N/A**	**N/A**	**12,674**
	Scope 3 GHG emissions	tCO2e	N/A	N/A	N/A	82,287
	Total	**tCO2e**	**N/A**	**N/A**	**N/A**	**94,961**
	GHG intensity (Scope 1 and 2)	tCO2e/sq ft	N/A	N/A	N/A	0.15
	Energy intensity	kWh/m2	96.60	75.18	61.88	169.90
	Share of renewable energy usage	%	N/A	N/A	N/A	1.40%
	Annual water use intensity	m3/sq ft	0.08	0.06	0.05	0.16
	Waste diverted away from landfill	%	N/A	N/A	N/A	5.0%
	Cases of non-compliance	number	N/A	N/A	N/A	0
	Green certification of properties	%	N/A	N/A	N/A	17%
S	% of women in workforce	%	N/A	N/A	N/A	78%
	% of women in management roles	%	57%	60%	55%	73%
	Lost time injury frequency rate (LTIFR)	rate	N/A	N/A	N/A	1.72
	Training hours/employee	hours	N/A	N/A	N/A	55.0
G	Independent directors on the Board (tenure <10 years)	%	100%	100%	100%	50%
	Female directors on the Board	%	29%	33%	33%	43%
	Distribution to shareholders	%	95%	93%	98%	92%

Qualitative Parameters (Score: 33)

a) Is there an ESG policy in place and whether there is a standalone ESG committee or is it part of a risk committee?

The Board sets up a Retail Risk Management and Sustainability Committee (Retail RMSC) which works to ensure the REIT's continued progress and improvement as it continues on its sustainability journey. The Board is kept regularly updated on ESG matters through the Retail RMSC which provides updates and review of sustainability policies and practices in place.

b) Is the senior management salary linked to fulfilling ESG targets?

No.

c) Does the company follow the task force of climate related disclosures (TCFD) framework for ESG reporting?

No.

d) Does the company do green leasing or has plans to start green leasing or participate in GRESB real estate assessment?

No.

e) What are the 2-3 key carbon mitigation/water/waste management strategies adopted by the company?

In FY21, it installed rainwater harvesting systems to store rainwater for operational use to further increase water efficiency and decrease water consumption in its malls. Meanwhile, all rubbish bins in its malls continue to have a separate section for recyclable materials, and paper towels have been removed from the toilets to encourage shoppers to use the hand dryers.

f) Does carbon offset form part of the net zero/carbon neutrality target of the company?

No.

Target (Score: 50)		
Particulars	**Target**	**Achieved**
Independent directors representation	50%	44.4%
Fatality and accidents	0	35
Female representation on Board	30%	33.3%
Emission reduction/carbon neutral/net zero	N/A	N/A

Impact

NA

*** Peer Comparison**

We have benchmarked IGBREIT's ESG metrics against that of its closest listed peer with publicly available comparable metrics - Sunway REIT (SREIT MK; Hold; TP: MYR1.46). The peer's ESG standing has been assessed separately.

ESG score	Weights	Scores	Final Score
Quantitative	50%	20	10
Qualitative	25%	33	8
Target	25%	50	13
Total			**31**

IGBREIT's overall ESG score is **31**, which makes its ESG rating **below average** in our view (average ESG rating = 50; refer to Appendix I for our ESG Assessment Scoring). As per our ESG assessment, IGBREIT has weak disclosures. Increase in quantitative and qualitative metrics, as well as long-term ESG targets could improve its score.

TECHNOLOGY

Inari Amertron Bhd

anand.pathmakanthan@maybank-ib.com

Risk Rating & Score[1]	28.1 (Medium)
Score Momentum[2]	N/A
Last Updated	13 Jul 2022
Controversy Score[3] (Updated: 27 May 2022)	0 - No reported incidents

Business Model & Industry Issues

- Inari is the largest listed technology company on Bursa by market capitalisation - a testament to its niche expertise in back-end wafer processing, assembly, and testing of RF & optoelectronic products for a global clientele that includes Broadcom.
- In our view, the company has been largely successful in complying with environmental and occupational health & safety standards. However, female and independent representation on its board has been comparatively low. Meanwhile, Inari continues to uphold human and labour rights, and fair treatment in managing foreign labours.
- Overall, Inari is still largely well-placed to leverage on its competent management team and strong track record to maintain its market-leading position and capitalise on the mass deployment of 5G smartphones in the years to come.
- **Inari scores well above average in our proprietary scoring methodology (see next page) with an overall score of 70/100.**

Material E issues

- Energy consumption was approximately 400 kGJ across the group in FY21 (8% increase from FY20). Energy intensity however was lower by 29% to 20.5 GJ/m FOU, with a notable YoY reduction in Malaysia and the Philippines.
- Company has been certified ISO 14001 since 2007 and strives to minimise its environmental impact via pollution- prevention mechanisms. In FY21, it generated 74.9 ktCO2e of greenhouse gas (GHG) emissions (up 7.5% vis-a-vis FY20 due to higher production volumes). Emissions intensity however decreased by 29.3% across the group as a whole. Of the total, direct (Scope 1) GHG emissions amounted to <1% of total emissions with the remaining 99.7% being indirect emissions from electricity usage.
- Achieved its FY21 waste reduction target in Malaysia by either successfully recovering, recycling or reusing 91.5% of its 607 tonnes of generated waste.
- Management is currently installing solar PV panels in its premises to reduce GHG emissions by a further 6% in FY22.

Material S issues

- Gender inclusivity is at the forefront of management's strategic priorities with 64% of the 5,800-stong workforce being female. The female new hire rate has also increased from 13.6% in FY20 to 17.9% in FY21.
- Employee benefits (including insurance and medical coverage) are generous by industry standards and employees are on average, provided 13 hours of training per year in both vocational and non-technical fields.
- In terms of occupational safety & health (OSH), the group reported no workplace injuries in FY21 across its Malaysian operations. OSH training is also mandatory for all staff.
- Inari strives to uphold human and labour rights and fair treatment in managing foreign labours (i.e. legal work permits, at least minimum wage, prohibition of child labour and forced labour). Approx. 22% of Inari's FY21 workforce was foreign labour (vs. 30% in FY20).

Key G metrics and issues

- Independent directors, including the chairman, currently make up 36% of the board or 4 of the 11 members. Although the composition is compliant with Bursa's Main Market Listing requirements, it is not in line with the Malaysian Code on Corporate Governance (MCCG) practise of having at least half the board comprising of independents. The company acknowledges this shortcoming and has set itself a two-year timeline to make the necessary amends.
- Only 9% or 1 of the 11 of the board members is female. Although she is the chairman of the board, it doesn't negate the dearth of diverse perspectives that could arise from a lack of female representation. The company has set itself a 2-year timeline to increase female representation to at least 30% to be more in line with MCCG best practises.
- Average tenure of the independent board members is 10.2 years (longest serving at 12.5 years and shortest at 4.2 years). Leadership churn risk is low with no independent director resigning since June 2012. The board has however not adopted a policy to limit the tenure of its independent directors to nine years with 3 of the 4 existing independent directors having served more than nine years each.
- All 4 board committees are chaired by independent directors and have an independent majority.
- Director's remuneration stands at 0.8% of FY21 net profit. The company's remuneration is based on performance and adherence to corporate governance as well as sustainability targets. It is benchmarked periodically against peers to ensure fair and motivating compensation.
- No material related-party transactions to date.
- Grant Thornton has been the external auditor for more than 10 years since the company listed in 2011.
- Inari has undertaken 2 major acquisitions since listing - notably Amertron (Global) in 2013 for USD32m and 9.7% of PCL Technologies at a reasonable 8.4% premium in 2016. Both acquisitions have been value-accretive and successful in increasing shareholder returns.

[1]*Risk Rating & Score* - derived by Sustainalytics and assesses the company's exposure to unmanaged ESG risks. Scores range between 0 - 50 in order of increasing severity with low/high scores & ratings representing negligible/significant risk to the company's enterprise value, respectively, from ESG-driven financial impacts. [2]*Score Momentum* - indicates changes to the company's score since the last update - a negative integer indicates a company's improving risk score; a positive integer indicates a deterioration. [3]*Controversy Score* - reported periodically by Sustainalytics in the event of material ESG-related incident(s), with the impact severity scores of these events ranging from Category 0-5 (0 - no reports; 1 - negligible risks; ...; 5 - poses serious risks & indicative of potential structural deficiencies at the company).

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	Quantitative Parameters (Score: 47)					
	Particulars	Unit	FY6/19	FY6/20	FY6/21	*UNI MK (FY12/21)
E	Scope 1 GHG emissions	k tCO2e	0.2	0.4	0.6	1.3
E	Scope 2 GHG emissions	k tCO2e	70.7	69.4	74.3	135.6
E	**Total**	**k tCO2e**	**70.9**	**69.7**	**74.9**	**136.9**
E	Scope 3 GHG emissions	k tCO2e	N/A	N/A	N/A	N/A
E	**Total**	**k tCO2e**	**70.9**	**69.7**	**74.9**	**136.9**
E	GHG intensity (Scope 1 and 2)	tCO2e/m units	6.5	5.5	3.9	14.0
E	Energy intensity	GJ/m units	34.2	28.9	20.5	76.0
E	Water intensity	m3/m units	65.0	57.0	40.0	120.0
E	Wastewater discharge (COD)	mg/L	386.4	269.4	67.7	N/A
E	Waste 3R rate (Malaysia only)	%	91.6%	90.0%	91.5%	41%*
E	Share of renewable energy use	%	N/A	N/A	>1%	N/A
E	Cases of environmental non-compliance	number	0	0	0	0
S	Proportion of women in the workforce	%	73.0%	69.0%	64.0%	59.0%
S	Proportion of women as new hires	%	15.9%	13.6%	17.9%	27.3%*
S	Proportion of locals as new hires	% (avg)	81.5%	81.5%	86.5%	N/A
S	Lost time injury frequency (LTIF) rate	number (avg)	0.98	0.45	0.97	1.44
S	Training hours per employee	number	12	10	13	30
G	MD/CEO salary as % of reported net profit	%	0.3%	0.3%	0.4%	2.2%
G	Board salary as % of reported net profit	%	0.8%	0.8%	0.8%	4.0%
G	Independent directors on the Board	%	40%	40%	36%	30%
G	Female directors on the Board	%	10%	10%	9%	20%

Qualitative Parameters (Score: 86)

a) Is there an ESG policy in place and whether there is a standalone ESG committee or is it part of a risk committee?

Yes - it has an established sustainability framework/handbook and a sustainability & integrity working group (SIWG) that is led by the Group CEO and assisted by the CFO. The SIWG reports directly to the Sustainability & Risk Management Board Committee.

b) Is the senior management salary linked to fulfilling ESG targets?

Yes

c) Does the company follow the task force of climate related disclosures (TCFD) framework for ESG reporting?

Yes

d) Does the company have a mechanism to capture Scope 3 emissions - which parameters are captured?

No

e) What are the 2-3 key carbon mitigation/water/waste management strategies adopted by the company?

Energy efficiency: Completed - conversion of compressor from screw to centrifugal at P3/13 (saves 322 kWh per mth), conversion of lighting from T8 to LED at P1/3/5 (saves 133 kWh per mth); Ongoing - solar panel installation at P13/21/55 (to save 155,918 kWh per mth). Water mgmt: converting machines from single to dual spindle, rainwater harvesting, recycling of RO reject water, upgrading piping system. Waste mgmt: has 90% 3R target in place and plans to invest in an Industrial Effluent Treatment System.

f) Does carbon offset form part of the net zero/carbon neutrality target of the company?

Yes

g) Has the company faced any lawsuits/controversies pertaining to anti-competitive practises or IP infringement?

No

Target (Score: 100)

Particulars	Target	Achieved
Waste management 3R rate	90.0%	91.5%
GHG emission reduction via solar panels	6%	N/A
GHG emission reduction via LED lighting	1%	>1%
Female representation on Board	30%	9%
Independent representation on Board	N/A	36%

Impact

NA

*** Peer Comparison**

We have benchmarked INRI's ESG metrics against that of its closest listed peer with publicly available comparable metrics - Unisem (M) Berhad (UNI MK, Not Rated). The peer's ESG standing is not assessed and solely exists as a point of reference.

ESG score	Weights	Scores	Final Score
Quantitative	50%	47	24
Qualitative	25%	86	21
Target	25%	100	25
Total			**70**

Per our ESG assessment, INRI has an established ESG framework/ internal policies and scores well in terms of its "E" and "S" metrics but needs to make headway in improving its board diversity and establishing clearer ESG targets moving forward. INRI's overall score of **70** makes its ESG rating **above average** in our view, and in-line with its sector's low-to-medium ESG risk profile (average ESG rating = 50; refer to Appendix I for our ESG Assessment Scoring).

ViTrox Corp. Bhd

anand.pathmakanthan@maybank-ib.com

Risk Rating & Score[1]	24.6 (Medium)
Score Momentum[2]	**0.0**
Last Updated	03 Jul 2021
Controversy Score[3] (Updated: 28 May 2018)	0 - No reported incidents

Business Model & Industry Issues

- ViTrox has been at the forefront of vision inspection and solutions for the semiconductor and electronic packaging industry. It has 20 years of experience in the industry and an expansive customer base spanning 17 countries. Its products, critical in detecting micro-defects, are used by major chip and circuit board manufacturers in their production lines. In December 2021, the company was added to the FTSE4Good Bursa Malaysia (F4GBM) Index.
- In our view, the company has thus far gone above and beyond to ensure strict compliance with the various environmental, occupational safety & health and corporate governance requirements. With a management team that's driven to create shareholder value, maintain customer satisfaction and ensure the best working environment for its employees, ViTrox is arguably well-placed to maintain its position as one of the market leaders in the industry.
- **ViTrox also scores above-average in our proprietary scoring methodology (see next page) with an overall score of 55/100.**

Material E issues

- Took the proactive step of splitting its Environmental Policy from the combined Environmental Safety & Health Policy on 1st September 2019. All relevant environmental permits have also been obtained and maintained, with reporting requirements strictly adhered too.
- Scheduled waste: For FY21, company was well within the limits as outlined in the Environmental Quality Regulations 2005 of the Environmental Quality Act 1974.
- Installed a 458kW industrial-scale solar photovoltaic system at its Batu Kawan factory in August 2018 that generated 688,200 kWh in FY21 – the equivalent of a 440 tonne reduction in CO2 emissions.
- Introduced various green initiatives for its employees such as V-Carpooling, V-Farm (on- campus programme to produce pesticide-free vegetables, herbs, and fruits for employee consumption, with the excesses donated to charity), and the lauded V-Meal program that utilises the V-Farm produce to provide free and nutritious vegetarian lunches to all employees 4 days a week (117k meals prepared in FY21).

Material S issues

- Gender diversity: Despite an increase in the number of employees from 679 in FY20 to 799 in FY21, its female ratio also improved from 29.90% to 30.04% YoY.
- Occupational safety & health: In FY21, the incident rate (IR) and lost time incident frequency rate (LTIFR) were both lower YoY at 2.37 (FY20: 3.11) and 1.19 (FY20: 2.37) per 1 million hours worked.
- Training: Recorded a total of 32,762 training hours in FY21 (FY20: 23,332 hours). Average training hours per employee also increased from 34 in FY20 to 41 in FY21.
- CSR: Contributed MYR1,939k in FY21 (FY20: MYR903k) to various charities and educational initiatives.

Key G metrics and issues

- Independent directors currently form 57.1% of the Board with 4 of the 7 members, including the Chairman - composition is in line with the desired Malaysian Code on Corporate Governance practise of having at least half the Board comprising of independents.
- Average tenure amongst the independent Board members is 13.8 years (longest-serving at 17.3 years and shortest at 4.6 years). Leadership churn risk is very low with only a single independent director who had served for 10 years retiring on 1 Aug 2020. The board has not adopted a policy to limit the tenure of its independent directors to 9 years.
- All 4 board committees are chaired by independent directors. Both key board committees - audit & nomination - comprise solely of independents while the remuneration committee is comprised of an independent majority (2 of 3 members). The ESOS committee is the only board committee that has a non- independent majority (3 of 5 members).
- 28.6% or 2 of 7 of the Board are female (up from 25% following the resignation of a male non-independent director in Aug 2020). All key senior management are male.
- Director's remuneration stands at 2.4% and 0.9% of total group-wide employee compensation and FY21 net profit respectively.
- Crowe Malaysia (formerly Crowe Horwath) has been the external auditor for 15 years (since 2007).
- No related party transaction of note since listing.
- No notable controversial or value-dilutive merger and acquisition since listing.

[1] ***Risk Rating & Score*** - derived by Sustainalytics and assesses the company's exposure to unmanaged ESG risks. Scores range between 0 - 50 in order of increasing severity with low/high scores & ratings representing negligible/significant risk to the company's enterprise value, respectively, from ESG-driven financial impacts. [2] ***Score Momentum*** - indicates changes to the company's score since the last update - a negative integer indicates a company's improving risk score; a positive integer indicates a deterioration. [3] ***Controversy Score*** - reported periodically by Sustainalytics in the event of material ESG-related incident(s), with the impact severity scores of these events ranging from Category 0-5 (0 - no reports; 1 - negligible risks; ...; 5 - poses serious risks & indicative of potential structural deficiencies at the company).

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	Quantitative Parameters (Score: 67)					
	Particulars	Unit	FY19	FY20	FY21	PENTA MK (FY21)
E	Scope 1 emissions	tCO2e	21.6	11.0	8.9	1.2
	Scope 2 emissions	k tCO2e	2.2	2.6	3.0	3.7
	Total	**k tCO2e**	**2.2**	**2.6**	**3.0**	**3.7**
	Scope 3 emissions	k tCO2e	N/A	N/A	N/A	N/A
	Total	**k tCO2e**	**2.2**	**2.6**	**3.0**	**3.7**
	GHG intensity (Scope 2)	ktCO2e/MYR b	6.5	5.5	4.5	7.3
	Energy intensity	MWh/MYR b	12.6	10.3	8.0	11.0
	Water intensity	m3/MYR b	80.2	58.8	47.7	65.0
	Hazardous waste intensity	t/MYR b	0.29	0.26	0.47	1.16
	Recycled waste intensity	t/MYR b	58.2	61.1	73.1	N/A
	Share of renewable energy use	%	17.3%	14.7%	12.7%	N/A
	Cases of environmental non-compliance	number	0	0	0	0
S	Proportion of women in the workforce	%	28.8%	29.9%	30.0%	18.6%
	Proportion of women in exec leader roles	%	20.2%	19.5%	23.3%	N/A
	Incident rate (IR)	no. (avg)	1.65	3.11	2.37	N/A
	Lost time incident frequency rate (LTIR)	no. (avg)	0.55	2.08	1.19	N/A
	Training hours per employee	no. (avg)	57.5	34.4	41.0	17.5
G	MD/CEO salary as % of reported net profit	%	0.4%	0.4%	0.3%	0.5%
	Board salary as % of reported net profit	%	1.5%	1.3%	0.9%	0.7%
	Independent directors on the Board	%	63%	57%	57%	40%
	Female directors on the Board	%	25%	29%	29%	20%

Qualitative Parameters (Score: 86)

a) Is there an ESG policy in place and whether there is a standalone ESG Committee or is it part of Risk committee?

Yes - it has an established sustainability framework in place and in July 2021, established an ESG Steering Committee (ESC), chaired by the CEO and assisted by an ESG Working Group (EWG).

b) Is the senior management salary linked to fulfiling ESG targets?

No

c) Does the company have a responsible sourcing policy?

Yes - it has an established fair supplier sourcing and transparent procurement processes in place and conducts regular assessments to ensure strict adherence to its Supplier Code of Conduct. Local vendors are prioritised with >60% of its raw material/fabrication purchases originating domestically between 2019-21.

d) Have there been any incidents of cybersecurity/data privacy breach?

No

e) What are the 2-3 key carbon mitigation/water/waste management strategies adopted by the company?

Energy efficiency - deployed homegrown energy optimisation control system (V-One) to monitor energy consumption + installed LED lighting with automatic timers/sensors + converted air compressor screw type from rotary to variable; Waste - has program to convert cafeteria waste to compost used in V-Farm + setup recycling waste centres; Water - actively harvests rainwater via installation of 2 eco-ponds + installed a hands-free water conservation & plant watering system (saving ratio of 65.5%).

f) Does carbon offset form part of the net zero/carbon neutrality target of the company?

Yes - installed a 458kW industrial-scale PV system with 1,410 panels that generated 688MWh of energy (equivalent to 440 tCO2e carbon reduction) in 2021; V-Farm program grew 3.36 tonnes of organic vegetables used to provide 116,722 free vegetarian meals to employees on weekdays (equivalent to 359 tCO2e carbon reduction) in 2021.

g) Has the company faced any anti-competitive practises or IP infringement controversies?

No

Target (Score: 0)

Particulars	Target	Achieved
N/A	N/A	N/A

Impact

N/A

*** Peer Comparison**

We have benchmarked VITRO's ESG metrics against that of its closest listed peer with publicly available comparable metrics - Pentamaster Bhd (PENTA MK, N/R). The peer's ESG standing is not assessed and solely exists as a point of reference.

ESG score	Weights	Scores	Final Score
Quantitative	50%	67	33
Qualitative	25%	86	21
Target	25%	0	0
Total			**55**

As per our ESG assessment, VITRO has an established framework, internal policies to mitigate ESG risks but needs to make headway in improving its tangible target-setting (thus far unavailable). VITRO's overall ESG score is **55**, which makes its ESG rating **above average** in our view (average ESG rating = 50; refer to Appendix I for our ESG Assessment Scoring).

MyEG Services Bhd

msshafiqk.abdkadir@maybank-ib.com

Risk Rating & Score[1]	21.5 (Medium)
Score Momentum[2]	0.0
Last Updated	27 Sep 21
Controversy Score[3] (Updated: 28 May 14)	0 - No reported incidents

Business Model & Industry Issues

- MYEG is a digital services-centric business, centred on government concessions of portals (primarily IMI, RTD, MOH) and commercial services which complement its existing digital infrastructure with these government departments.
- Management has been proactive in diversifying MYEG's business segments, beyond renewal-based government concessions. Its good working relationship with government divisions and established strong digital infrastructure not only underpin expectations of continued concession renewals but also create a strong barrier to entry for potential new entrants to this sector.
- Relative to its peers in software & technology services, we opine that MYEG has a better level of sustainability disclosures.
- It has been a member of the Bursa FTSE4Good Index since 2017 and has a 4-star rating in Bursa's ESG Ranking.
- It has adopted United Nations Sustainable Development Goals (UNSDG) in 6 areas since 2017 (Good Health & Well Being, Quality Education, Gender Equality, Decent Work & Economic Growth, and Reduced Inequalities).
- **MYEG also scores above-average in our proprietary scoring methodology (see next page) with an overall score of 67/100.**

Material E issues

- MYEG's G2C and B2C electronic services encourage the public to utilize e-services rather than counter service, providing convenience and reducing related carbon footprint through reduced travel to physical offices in the context of fuel consumption and paper usage.
- In FY21, it saw a 16% reduction in electricity consumption to 2.21GWh, primarily related to its ICT-related equipment such as data centres, office tower and PCs.
- It is looking to manage the consumption level better and considering renewable energy options. No specific target has been introduced as of FY21.
- From a paper wastage standpoint, digitalization of operations has minimised the need for paper. It has policies in place to reduce the paper consumption for office administrative matters and print only if necessary.
- It is a member of Bursa FTSE4Good and adopts 6 out of 17 policies of UNSDG.

Material S issues

- Adopts these core policies: (i) equal treatment & non-discrimination/ harassment; (ii) anti-bribery & corruption; and (iii) whistle blowing, among others.
- Has a diversified workforce of 2,552 staff (+3% YoY), with attrition rate of 19% in FY21.
- Females make up 40% of the workforce, while female representation in the management level is at 34% (Assistant Manager and above). 9.6% of its workforce are aged 41 years and above.
- 8,194 hours of training in FY21. Employees received 7.5 hours (per staff) of training time.
- MYEG supported more than 50 charity groups and organized 13 community investment activities. Its CSR initiatives include blood donation, food distribution/foodbank, and donation for flood victims.

Key G metrics and issues

- The board has 7 Directors - 4 of which are Independent Non-Executive Directors (INEDs) or 57% of the board.
- The board has 2 female Directors (out of 7), representing 29% of the board's composition (almost meeting the minimum of 30%). The board is assessing potential female candidates to be appointed to meet the minimum target.
- Audit committee comprise of 3 members, all of which are INEDs and at least one is a member of Malaysia Institute of Accountants.
- The risk management committee is made up of 2 INEDs.
- Wong Thean Soon, the Founder and Managing Director of MYEG, holds 20.6% effective stake, both direct as well as through his holding company, Asia Interest Holdings.
- Among the 7 board members, 4 of them have been serving for >10 years.
- Compensation of the Board Members (Both IED and INED) sums up to 0.6% of FY21 net profit.
- In FY20, MYEG introduced the enhanced Anti-Bribery and Anti-Corruption (ABAC) policy in-line with Malaysia AntiCorruption Commission Act 2018 (MACCA).
- The company has strengthened its cyber security policy and procedures in compliance with the ISO/IEC 27001 Information Security Management System and NIST Cybersecurity Framework, ensuring IT infrastructure is safeguarded from cyber threats.
- MYEG is also in compliance with Personal Data Protection Act (PDPA), and no data breaches occurred in the past.
- In Dec 2017, MYEG has been imposed a fine of MYR9.6m for violating competition law and having a dominant position in relation to the sale of mandatory insurance for online applications of temporary employment permits for foreign workers. The amount has been fully paid by FY19.
- Crowe Malaysia PLT has been the auditor for MYEG for more than 10 years (since public listing in 2007).

[1]***Risk Rating & Score*** - derived by Sustainalytics and assesses the company's exposure to unmanaged ESG risks. Scores range between 0 - 50 in order of increasing severity with low/high scores & ratings representing negligible/significant risk to the company's enterprise value, respectively, from ESG-driven financial impacts. [2]***Score Momentum*** - indicates changes to the company's score since the last update - a negative integer indicates a company's improving risk score; a positive integer indicates a deterioration. [3]***Controversy Score*** - reported periodically by Sustainalytics in the event of material ESG-related incident(s), with the impact severity scores of these events ranging from Category 0-5 (0 - no reports; 1 - negligible risks; ...; 5 - poses serious risks & indicative of potential structural deficiencies at the company).

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	Quantitative Parameters (Score: 67)					
	Particulars	**Unit**	**2019**	**2020**	**2021**	**DSON MK (FY22)**
E	Scope 1 GHG emissions	tCO2e	47	36	23	N/A
	Scope 2 GHG emissions	tCO2e	1,704	1,544	1,291	N/A
	Total	**tCO2e**	**1,751**	**1,580**	**1,314**	**N/A**
	Scope 3 GHG emissions	tCO2e	N/A	N/A	N/A	N/A
	Total	**tCO2e**	**N/A**	**N/A**	**N/A**	**N/A**
	GHG intensity (Scope 1 and 2)	Kg CO2e/emp	675	637	515	N/A
	Electricity consumption	MWh	2,913	2,640	2,206	1,567
	Water consumption	m3	N/A	N/A	N/A	5,160
	Petrol consumption	litres	19,773	15,195	9,763	N/A
	Solid waste disposal	tonnes	N/A	N/A	N/A	7.4
	Cases of environmental non-compliance	number	0	0	0	N/A
S	% of women in workforce	%	39.5%	40.1%	40.0%	50.8%
	% of women in management roles	%	34.1%	32.6%	34.1%	0.8%
	Policy, data & framework breaches	number	0	0	0	0
	% of employees undertaking training	%	54.2%	37.6%	35.5%	N/A
	Attrition rate	%	23.6%	13.9%	19.2%	N/A
G	MD/CEO salary as % of reported net profit	%	0.18%	0.41%	0.35%	5.38%
	Board salary as % of reported net profit	%	0.28%	0.22%	0.23%	8.67%
	Independent directors on the Board	%	60%	67%	57%	64%
	Female directors on the Board	%	20%	17%	29%	9%

Qualitative Parameters (Score: 33)

a) is there an ESG policy in place and whether there is a standalone ESG committee or is it part of a risk committee?
Yes - the group has established a Sustainability Working Group that reports to the Senior Management to ensure and enable effective implementation of sustainability strategies and plans.

b) is the senior management salary linked to fulfilling ESG targets?
No.

c) Has the company faced any controversy or bribery incidents?
No - there were zero incidents on any controversy, bribery, or breach of human right policies.

e) Does the company have a mechanism to capture Scope 3 emissions - which parameters are captured?
No.

f) What are the 2-3 key carbon mitigation/water/waste management strategies adopted by the company?
The group utilises a chilled water system that enables recirculation of water to cool the office buildings, has been implementing paper-reducing and recycling initiatives, responsible disposal of electronic and other wastes, as well as exploration of renewable energy options for its premises.

g) Does carbon offset form part of the net zero/carbon neutrality target of the company?
Yes - the Group is looking into the feasibility of purchasing carbon credits to offset emissions towards achieving a carbon neutral status.

Target (Score: 100)

Particulars	**Target**	**Achieved**
Reduce Scope 1 & 2 emissions vs 2020 baseline	N/A	26%
Reduce energy consumption vs 2020 baseline	N/A	16%
Phone call queries response rate	90%	71%

Impact

NA

*** Peer Comparison**

We have benchmarked MYEG's ESG metrics against that of its closest listed peer with publicly available comparable metrics - Datasonic Bhd (DSON MK, N/R). The peer's ESG standing is not assessed and solely exists as a point of reference.

ESG score	Weights	Scores	Final Score
Quantitative	50%	67	33
Qualitative	25%	33	8
Target	25%	100	25
Total			**67**

Per our ESG assessment, MyEG has an established sustainability framework and internal policies, but needs to incorporate tangible mid/long-term sustainability targets, besides including more ESG metrics. MyEG's overall ESG score is **67**, which sits at **above average** (average ESG rating = 50; refer to Appendix I for our ESG Assessment Scoring).

TELCOS

DiGi.com Bhd

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Risk Rating& Score¹	24.1 (Medium)
Score Momentum²	+2.9
Last Updated	16 Mar 2022
Controversy Score³ (Updated: 31 Jul 2013)	0 - No reported incidents

Business Model & Industry Issues

- The ESG pressure faced by telcos is overall benign. Telcos are not major emitters and thus do not pose a significant threat to the environment. Major social issues relate to digital inclusion and data protection, and can generally be well-managed from an operational perspective.
- We see telcos are potential ESG beneficiaries. Given the industry's extensive population reach and core speciality in connectivity, telcos are well-positioned to serve as ESG enablers, helping other industries address their respective ESG issues. This could mean new revenue streams for telcos (for example in the area of IoT solutions, mobile banking and mobile education to name a few), although telcos would then need to work on how to successfully monetise these opportunities (as with OTT services, the value proposition to telcos is not necessarily equitable).
- Being part of Telenor Group, Digi's ESG stance is heavily influenced by parent Telenor, which is headquartered in a jurisdiction that arguably conforms to higher ESG standards. Digi is revered for its strong execution capabilities, consistent financial delivery and proactive capital management.
- **Digi also scores above-average in our proprietary scoring methodology (see next page) with an overall score of 67/100.**

Material E issues

- Environmental risks are inherently less pertinent for telcos, with operations being neither energy nor emission intensive. Regardless, Digi is targeting a 50% reduction in carbon emissions by 2030 from a 2018 baseline.
- Digi has reduced fuel dependencies by converting 156 generator-powered sites to grid-powered, thus reducing Scope 1 emissions.
- Electricity consumption has also been optimised through a reduction of running hours during low-peak traffic cycles.
- Over 900 sites have been identified to undergo installation of exhaust fans to minimise power consumption used in cooling systems.

Material S issues

- Internet connectivity is deemed as an essential service, particularly during a pandemic. The government had mandated mobile telcos to provide free data (1GB/day) to subscribers during the MCO. This inevitably affected monetisation.
- The emphasis on digital inclusion and rural connectivity means telcos could be pressured to invest in areas that are not commercially-viable. In Malaysia, the regulator funds such investments through the USP fund (telcos contribute 6% of revenue to the fund annually).
- A major data breach occurred in 2017 with subscriber and device details of Digi and most Malaysia telcos being leaked online. The leak was eventually traced to the regulator's Public Cellular Blocking Service (externally-managed). Telcos were thus absolved of blame.
- Digi's has a gender-balanced workforce with a male-female split of 50%-50%. Women make up 45% of the extended management team.

Key G metrics and issues

- Being part of the Telenor group (49%-owned), Digi's governance practices are inevitably heavily-influenced by Telenor.
- The Board currently has 6 Directors, comprising 3 Non-Independent Directors (including Chairman, all Telenor appointees) and 3 Independent Directors. At the time of writing, there is no intention to raise the proportion of Independent Directors.
- There are three women on the Board, reflecting a 50% female representation.
- Digi presently does not disclose remuneration details of senior management for confidentiality reasons. This practice could potentially be reviewed in the next two years.
- Digi has been audited by Ernst & Young for at least the past decade.
- There have been no questionable related-party transactions of note. Digi has generally benefitted from being under the Telenor umbrella (management expertise, technology transfer, procurement benefits). Its margins are presently the highest among its Malaysia mobile peers.
- Digi is very proactive with capital management, having already exhausted its retained earnings (through the payment of special dividends in the past). It now maintains a 100% dividend payout ratio.
- Digi has not undertaken any material M&As in recent years. A merger proposal between Celcom and Digi is currently ongoing, pending relevant approvals.

¹***Risk Rating & Score*** - derived by Sustainalytics and assesses the company's exposure to unmanaged ESG risks. Scores range between 0 - 50 in order of increasing severity with low/high scores & ratings representing negligible/significant risk to the company's enterprise value, respectively, from ESG-driven financial impacts. ²***Score Momentum*** - indicates changes to the company's score since the last update - a negative integer indicates a company's improving risk score; a positive integer indicates a deterioration. ³***Controversy Score*** - reported periodically by Sustainalytics in the event of material ESG-related incident(s), with the impact severity scores of these events ranging from Category 0-5 (0 - no reports; 1 - negligible risks; ...; 5 - poses serious risks & indicative of potential structural deficiencies at the company).

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Quantitative Parameters (Score: 43)						
	Particulars	**Unit**	**2019**	**2020**	**2021**	*** Telekom (T MK)**
E	Scope 1 emissions	k tCO2e	9.76	10.75	10.34	11.00
	Scope 2 emissions	k tCO2e	174.04	185.75	196.78	24.55
	Scope 3 emissions	k tCO2e	1.64	0.73	0.33	0.01
	Total	**k tCO2e**	**185.44**	**197.23**	**207.45**	**35.55**
	Carbon intensity per data usage	tCO2e/TB	0.14	0.11	0.09	N/A
	Energy Usage per Data Terabyte (MWh)	MWh/TB	0.24	0.18	0.16	N/A
	Waste generated per employee	kg	183	170	103	22.3
	% E-waste recycled	%	100.0%	21.3%	100.0%	
S	% of women in workforce	%	49.0%	50.0%	50.0%	39.8%
	% of women in management roles	%	46.0%	47.0%	45.0%	31.0%
	Average training hours per employee	Hours	51.3	59.8	52.6	41.0
	Suppliers signing up for Responsible Business Conduct	Number	111	130	179	N/A
G	Key management salary as % of net profit	%	1.3%	1.2%	1.5%	2.2%
	Independent directors on the Board	%	43%	43%	50%	55%
	Female directors on the Board	%	43%	43%	50%	36%
	Customer satisfaction - retail	%	90%	89%	91%	N/A
	Customer satisfaction - call centre	%	62%	62%	58%	N/A

Qualitative Parameters (Score: 83)

a) Is there an ESG policy in place and whether there is a standalone ESG committee or is it part of a risk committee?

Yes. Responsible business is one of Digi's 3 key strategic pillars. The Responsible Business Forum (RBF), chaired by the CEO, overseas ESG matters.

b) Is the senior management salary linked to fulfilling ESG targets?

Yes. Management's reward matrix is assessed based on Digi's performance indicators under its 3 strategic pillars.

c) Does the company follow the task force of climate related disclosures (TCFD) framework for ESG reporting?

Not yet. The company plans to adopt the TCFD recommendations in a phased manner.

e) Does the company have a mechanism to capture Scope 3 emissions - which parameters are captured?

Yes - Air travel and leased vehicles.

f) What are the 2-3 key carbon mitigation/water/waste management strategies adopted by the company?

Optimising efficiencies from allocated radio spectrum, deploying AI tools to implement power-saving mode at RAN sites, pursuing green building certification.

g) Does carbon offset form part of the net zero/carbon neutrality target of the company?

Yes

Target (Score: 100)		
Particulars	**Target**	**Achieved**
Reduce emission in 2030 vs 2018 baseline by 50%	50%	N/A
Net-zero carbon emissions by 2050	2050	N/A

Impact

NA

*** Peer Comparison**

We have benchmarked DiGi's ESG metrics against that of its closest listed peer with publicly available comparable metrics - Telekom Malaysia Bhd (T MK; BUY; TP: MYR7.80). The peer's ESG standing has been assessed separately.

ESG score	Weights	Scores	Final Score
Quantitative	50%	43	21
Qualitative	25%	83	21
Target	25%	100	25
Total			**67**

As per our ESG assessment, Digi has an established framework, internal policies, and tangible mid/long-term targets. Digi's overall ESG score is **67**, which makes its ESG rating **above average** in our view (average ESG rating = 50; refer to Appendix I for our ESG Assessment Scoring).

Telekom Malaysia Bhd

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Risk Rating & Score[1]	26.1 (Medium)
Score Momentum[2]	+0.1
Last Updated	28 Nov 2021
Controversy Score[3] (Updated: 24 Nov 2021)	2 - Business ethic incidents (bribery & corruption)

Business Model & Industry Issues

- The ESG pressure faced by telcos is overall benign. Telcos are not major emitters and thus do not pose a significant threat to the environment. Major social issues relate to digital inclusion and data protection, and can generally be well-managed from an operational perspective.
- Apart from capacity superiority, fibre is also less energy intensive relative to copper as data is transmitted by light. Transitioning from copper to fibre is thus an easy way for telcos to reduce carbon footprint. TM presently operates both copper (Streamyx) and fibre (Unifi) last-mile networks, and has already begun moving its copper broadband subscribers to fibre (where there is overlap) or mobile networks. We expect TM to continue expanding its fibre last-mile coverage, and believe TM would eventually shut down its copper broadband network.
- As the national telecom infrastructure company, TM is the quintessential government-linked company with implicit nation-building responsibilities. Its operations and investments are thus not always solely driven by commercial viability. The acquisition of mobile broadband company P1 (now renamed Webe) in 2014 was contentious, with Webe having not been profitable since being acquired.
- **Telekom also scores above-average in our proprietary scoring methodology (see next page) with an overall score of 67/100.**

Material E issues

- Environmental risks are inherently less pertinent for telcos, with operations being neither energy nor emission intensive.
- TM's ongoing transition from copper (Streamyx) to fibre (Unifi) networks is not merely business-driven (higher capacity and speeds, lower unit cost, improved user experience) - fibre optics networks also consume less energy as data is transmitted by light. We believe TM would eventually shut down its copper network.
- TM achieved a 8% YoY decline in carbon emissions in 2021. Initiatives undertaken include optimising its vehicle fleet, implementing energy saving measures at its buildings and data centres, and promoting reduced air travel.

Material S issues

- Being the national telecom infra-co, TM has implicit nation-building responsibilities. Its investments (such as on-land fibre and submarine cables) are thus not always solely driven by commercial viability. In Malaysia, most rural investments are financed by the USP fund, which telcos contribute 6% of revenue to annually.
- TM's mobile arm also provided free data (1GB/day) to subscribers during the recent MCO.
- TM is a major employer in Malaysia, with a staff count of about 21,000 people. The male-female split of TM's workforce stood at 60%-40% as at 2021. Female representation among management stood at 31%. Meanwhile, 37% of TM's workforce is union-represented.
- TM owns and operates a university in Malaysia which enrols c.13,000 students in 3 campuses

Key G metrics and issues

- TM's constitution stipulates Ministry of Finance Inc as a special shareholder, with the power to appoint Directors (including Executive Directors) to the Board.
- The Board currently has 11 Directors, comprising 1 Executive Director, 4 Non-Independent Non-Executive Directors (including the chairman) and 6 Independent Non-Executive Directors.
- There are presently 4 women on the Board (36% representation). TM has thus fulfilled its 30% female board representation target.
- CEO remuneration accounted for 0.3% of TM's 2021 normalised net profit.
- TM has been audited by PricewaterhouseCoopers for at least the past decade.
- TM has in recent years adopted a more conservative stance (40-60% payout ratio) with capital management, having previously committed the higher of 90% of normalised net profit or MYR700m as dividends.
- The acquisition of mobile broadband company P1 (now renamed Webe) in 2014 was TM's only notable M&A transaction in recent years. The foray into the already crowded mobile space (in the aim of achieving convergence) was contentious, with Webe having not been profitable since being acquired.

[1]***Risk Rating & Score*** - derived by Sustainalytics and assesses the company's exposure to unmanaged ESG risks. Scores range between 0 - 50 in order of increasing severity with low/high scores & ratings representing negligible/significant risk to the company's enterprise value, respectively, from ESG-driven financial impacts. [2]***Score Momentum*** - indicates changes to the company's score since the last update - a negative integer indicates a company's improving risk score; a positive integer indicates a deterioration. [3]***Controversy Score*** - reported periodically by Sustainalytics in the event of material ESG-related incident(s), with the impact severity scores of these events ranging from Category 0-5 (0 - no reports; 1 - negligible risks; ...; 5 - poses serious risks & indicative of potential structural deficiencies at the company).

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Quantitative Parameters (Score: 50)						
	Particulars	Unit	2019	2020	2021	* DIGI (DIGI MK)
E	Scope 1 emissions	k tCO2e	13.39	11.53	11.00	10.34
	Scope 2 emissions	k tCO2e	30.91	27.04	24.55	196.78
	Scope 3 emissions	k tCO2e	0.06	0.04	0.01	0.33
	Total	**k tCO2e**	**44.36**	**38.60**	**35.55**	**207.45**
	Waste generated per employee	kg	43	21	22	103
S	% of women in workforce	%	38.6%	39.0%	39.8%	50.0%
	% of women in management roles	%	32.0%	27.5%	31.0%	45.0%
	Average training hours per employee	Hours	22.0	25.0	41.0	52.6
	Data-related incidents	Number	N/A	11	13	N/A
G	Key management salary as % of net profit	%	2.4%	1.9%	2.2%	1.5%
	Independent directors on the Board	%	55%	55%	55%	50%
	Female directors on the Board	%	18%	27%	36%	50%
	Customer satisfaction	%	N/A	11	23	N/A

Qualitative Parameters (Score: 67)

a) Is there an ESG policy in place and whether there is a standalone ESG committee or is it part of a risk committee?

Yes - TM introduced its Sustainability Roadmap in 2021, and also established its Sustainability Action Working Group.

b) Is the senior management salary linked to fulfilling ESG targets?

Yes. ESG-related KPIs have been introduced for senior management.

c) Does the company follow the task force of climate related disclosures (TCFD) framework for ESG reporting?

Not yet. TM is targeting for TCFD disclosure in 2023.

e) Does the company have a mechanism to capture Scope 3 emissions - which parameters are captured?

Yes, but on a limited basis. Air travel and waste-related emissions.

f) What are the 2-3 key carbon mitigation/water/waste management strategies adopted by the company?

Implementing Environment Management Systems across TM's network, increasing RE consumption (solar), optimising vehicle fuel consumption.

g) Does carbon offset form part of the net zero/carbon neutrality target of the company?

Yes

Target (Score: 100)		
Particulars	**Target**	**Achieved**
Reduce emission by 30% in 2024 vs 2019 baseline	30%	N/A
Reduce emission by 45% in 2030 vs 2019 baseline	45%	N/A
Net-zero carbon emission by 2050	2050	N/A
Fibre premises passed by 2025	>70%	64%
Minimum 30% women Board representation by 2022	30%	36%
TCFD disclosure by 2023	2023	N/A

Impact

NA

*** Peer Comparison**

We have benchmarked Telekom's ESG metrics against that of its closest listed peer with publicly available comparable metrics - DiGi.com Bhd (DIGI MK; HOLD; TP: MYR3.50). The peer's ESG standing has been assessed separately.

ESG score	Weights	Scores	Final Score
Quantitative	50%	50	25
Qualitative	25%	67	17
Target	25%	100	25
Total			**67**

As per our ESG assessment, TM has an established framework, internal policies, and tangible mid/long-term targets. TM's overall ESG score is **67**, which makes its ESG rating **above average** in our view (average ESG rating = 50; refer to Appendix I for our ESG Assessment Scoring).

Axiata Group Bhd

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Risk Rating& Score[1]	27.9 (Medium)
Score Momentum[2]	-0.8
Last Updated	19 Jul 2022
Controversy Score[3] (Updated: 24 Jun 2022)	2 - Business ethics incidents

Business Model & Industry Issues

- The ESG pressure faced by telcos is overall benign. Telcos are not major emitters and thus do not pose a significant threat to the environment. Major social issues relate to digital inclusion and data protection, and can generally be well-managed from an operational perspective. Axiata however also operates in frontier markets, and thus faces relatively higher operating risks.
- We see telcos are potential ESG beneficiaries. Given the industry's extensive population reach and core speciality in connectivity, telcos are well-positioned to serve as ESG enablers, helping other industries address their respective ESG issues. Axiata has already invested tangibly in a digital business arm, which at the moment is scaling up and is thus still loss-making. Axiata has demonstrated the monetisation potential of the business through divestment of minority stakes.
- Given its conglomerate-like structure, Axiata is possibly more inclined on a relative basis to participate in M&As. Axiata has initiated a number of M&As in recent years, both at the holding-co level and among its op-cos. Results have unfortunately been mixed, with the supposed accretion not materialising for some transactions.
- **Axiata scores above-average in our proprietary scoring methodology (see next page) with an overall score of 68/100**.

Material E issues

- Environmental risks are inherently less pertinent for telcos, with operations being neither energy nor emission intensive. Globally, GSMA (the industry body) has committed to a "Zero by 2050" carbon emission target, which Axiata is aiming to align to.
- The net zero target is potentially a challenge for Axiata as it is operating in regions where subscribers and networks are still growing. Axiata recorded a 9% increase in energy consumption in 2021, with networks accounting for 99% of total energy consumption.
- Measures undertaken include investing in new energy efficient equipment, transferring sites from diesel to grid, installing outdoor cabinets which do not require air conditioning units and building renewable energy capacity. edotco, its tower arm, has reduced its GHG emissions through innovative tower designs.

Material S issues

- Internet connectivity is deemed as an essential service. Axiata's op-cos in Malaysia, Nepal, Indonesia and Sri Lanka had offered discounted/free data to subscribers during the COVID-19 pandemic, which affected monetisation.
- The emphasis on digital inclusion and rural connectivity means telcos could be pressured to invest in areas that are not commercially-viable. In Malaysia, the regulator funds such investments through the USP fund (telcos contribute 6% of revenue to the fund annually).
- Axiata operates in emerging and frontier markets, where many have no access to formal financial services. Axiata has developed digital financial services platforms.
- The male-female split of Axiata's workforce stood at 68%-32% as at 2021 (Celcom standalone meanwhile is at a commendable 53%-47%). Female representation at senior management is at 20%.

Key G metrics and issues

- Axiata is a government-linked company. Khazanah Nasional, the national sovereign fund, owns 36.8% of Axiata and has board representation.
- The Board currently has 10 Directors, comprising 1 Managing Director (CEO), 3 Non-Independent Non-Executive Directors and 6 Independent Non-Executive Directors (including the chairman).
- There are presently only 2 women on the Board. The search for additional female Directors is in progress, with the Board aiming to comply with the 30% female representation target.
- Axiata does not disclose the remuneration details of senior management for confidentiality reasons.
- Axiata has been audited by PricewaterhouseCoopers for at least the past decade.
- Axiata's track record with dividends is average, given that capex requirements (due to growth opportunities) are still high in many markets that it operates in.
- Axiata had in 2019, announced it was in talks with Telenor to merge their respective Asian operations. The talks were subsequently terminated.
- Axiata's last major transaction was the acquisition of Ncell in 2017. This transaction was unfortunately mired with issues as capital gains tax was subsequently imposed on Ncell (instead of the seller) following a change of the Nepalese government.
- Axiata's has initiated a number of M&As at its op-cos (Smart-Hello in Cambodia, XL-Axis in Indonesia, Robi-Airtel in Bangladesh), mainly on the basis of market consolidation. Results have unfortunately been mixed, with the supposed accretion not materialising for some transactions.

[1]***Risk Rating & Score*** - derived by Sustainalytics and assesses the company's exposure to unmanaged ESG risks. Scores range between 0 - 50 in order of increasing severity with low/high scores & ratings representing negligible/significant risk to the company's enterprise value, respectively, from ESG-driven financial impacts. [2]***Score Momentum*** - indicates changes to the company's score since the last update - a negative integer indicates a company's improving risk score; a positive integer indicates a deterioration. [3]***Controversy Score*** - reported periodically by Sustainalytics in the event of material ESG-related incident(s), with the impact severity scores of these events ranging from Category 0-5 (0 - no reports; 1 - negligible risks; ...; 5 - poses serious risks & indicative of potential structural deficiencies at the company).

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Quantitative Parameters (Score: 62)						
	Particulars	Unit	2019	2020	2021	Digi (DIGI MK)
E	Scope 1 emissions	k tCO2e	103.50	47.86	74.02	10.34
	Scope 2 emissions	k tCO2e	1046.50	1183.66	1235.82	196.78
	Scope 3 emissions	k tCO2e	N/A	N/A	N/A	0.33
	Total	**k tCO2e**	**1150.00**	**1231.52**	**1309.83**	**207.45**
	Carbon intensity per data usage	tCO2e/TB	0.12	0.12	0.09	0.09
	Energy Usage per Data Terabyte (MWh)	GJ/TB	0.70	0.67	0.52	N/A
	Solar adoption at sites (edotco)	Number	982	1,677	2,208	N/A
	Op-cos publishing waste data	Number	0	0	4	N/A
S	% of women in workforce	%	29.0%	31.0%	32.0%	50.0%
	% of women in management roles	%	14.0%	17.0%	20.0%	45.0%
	Average training hours per employee	Hours	23.5	22.0	33.1	52.6
	Lost time injury frequency (LTIF)	Number	0 - 0.67	0 - 0.55	0 - 0.4	0
G	Key management salary as % of net profit	%	0.7%	5.3%	0.6%	1.5%
	Independent directors on the Board	%	50.0%	55.6%	60.0%	50%
	Female directors on the Board	%	20%	22%	20%	50%
	Number of top-ranked op-cos by NPS	Number	4	4	4	N/A

Qualitative Parameters (Score: 83)

a) Is there an ESG policy in place and whether there is a standalone ESG committee or is it part of a risk committee?

Yes. Axiata has a Sustainability Steering Committee to oversee its sustainability agenda.

b) Is the senior management salary linked to fulfilling ESG targets?

Yes. Sustainability-related key performance indicators (KPIs) have been included in Axiata's Group CEO and OpCo CEOs' annual KPIs.

c) Does the company follow the task force of climate related disclosures (TCFD) framework for ESG reporting?

Yes

e) Does the company have a mechanism to capture Scope 3 emissions - which parameters are captured?

No. Axiata is undertaking Scope 3 screening of its suppliers to determine its areas of control towards developing a Scope 3 inventory and baseline, with the aim of identifying a science-based Scope 3 target for 2030.

f) What are the 2-3 key carbon mitigation/water/waste management strategies adopted by the company?

Remote monitoring sensor (RMS) technology deployed at tower sites, pursuing green building certification, phase-out of diesel consumption for backup generators

g) Does carbon offset form part of the net zero/carbon neutrality target of the company?

Yes

Target (Score: 67)		
Particulars	**Target**	**Achieved**
Reduce emission in 2030 (from 2020 baseline) by 45%	45%	N/A
Net-zero carbon emissions by 2050	2050	N/A
To achieve 30% female directors at the Board	30%	20%

Impact

NA

*** Peer Comparison**

We have benchmarked Axiata's ESG metrics against that of its closest listed peer with publicly available comparable metrics - DiGi.com Bhd (DIGI MK; HOLD; TP: MYR3.50). The peer's ESG standing has been assessed separately.

ESG score	Weights	Scores	Final Score
Quantitative	50%	62	31
Qualitative	25%	83	21
Target	25%	67	17
Total			**68**

As per our ESG assessment, Axiata has an established framework, internal policies, and tangible mid/long-term targets. Axiata's overall ESG score is **68**, which makes its ESG rating **above average** in our view (average ESG rating = 50; refer to Appendix I for our ESG Assessment Scoring).

Maxis Bhd

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Risk Rating & Score[1]	28.2 (Medium)
Score Momentum[2]	+1.8
Last Updated	10 Sep 2022
Controversy Score[3] (Updated: 27 Nov 2021)	2 - Business ethics incidents, governance incidents

Business Model & Industry Issues

- The ESG pressure faced by telcos is overall benign. Telcos are not major emitters and thus do not pose a significant threat to the environment. Major social issues relate to digital inclusion and data protection, and can generally be well-managed from an operational perspective.
- We see telcos are potential ESG beneficiaries. Given the industry's extensive population reach and core speciality in connectivity, telcos are well-positioned to serve as ESG enablers, helping other industries address their respective ESG issues (Maxis in particular is increasingly active in the enterprise space). This could mean new revenue streams for telcos (for example in the area of IoT solutions, mobile banking and mobile education), although telcos would then need to work on how to successfully monetise these opportunities (value proposition to telcos is not necessarily equitable).
- Encouragingly for a tycoon-backed company, there has not been any questionable related-party transaction of note. Maxis is proactive with capital management, having often optimised gearing in order to maximise dividends. It is however trailing its domestic telecom peers in female representation, both at the board and senior management.
- **Maxis scores below-average in our proprietary scoring methodology (see next page) with an overall score of 31/100.**

Material E issues

- Environmental risks are inherently less pertinent for telcos, with operations being neither energy nor emission intensive. Maxis nevertheless aims to improve its energy efficiency and reduce greenhouse gas emissions across all its network assets and business activities.
- The total electricity consumption at network sites decreased by 2% YoY in 2021, while average emission per base station decreased by 4%, mainly due to improved operational efficiencies.
- Electricity consumption and office waste generation at Maxis' corporate offices were subdued in 2020-2021 mainly from the implementation of work-from-home arrangements during the COVID19 pandemic.

Material S issues

- Internet connectivity is deemed as an essential service, particularly during a pandemic. The government had mandated mobile telcos to provide free data (1GB/day) to subscribers during the MCO. This inevitably affected monetisation.
- The emphasis on digital inclusion and rural connectivity means telcos could be pressured to invest in areas that are not commercially-viable. In Malaysia, the regulator funds such investments through the USP fund (telcos contribute 6% of revenue to the fund annually).
- A major data breach occurred in 2017 with subscriber and device details of Maxis and most Malaysia telcos being leaked online. The leak was eventually traced to the regulator's Public Cellular Blocking Service (externally-managed). Telcos were thus absolved of blame.
- The male-female split of Maxis' workforce stood at 56%-44% as at 2021. There are three women among senior management (33% representation).

Key G metrics and issues

- Maxis is controlled by tycoon T. Ananda Krishnan through Usaha Tegas. Saudi Telecom Company (STC) is a strategic shareholder and currently has board representation.
- The Board currently has 10 Directors, comprising 5 Non-Independent Directors and 5 Independent Directors (including the chairman). There are 2 women on the Board.
- The search for additional female and/or Independent Directors is in progress, with the Board cognisant of diversity targets (30% female Directors by 2024).
- Maxis presently does not disclose the remuneration details of senior management for confidentiality reasons. The Board will re-evaluate this practice from time to time.
- Maxis has been audited by PricewaterhouseCoopers for at least the past decade.
- Maxis is proactive with capital management, with management willing to optimise gearing (at c.2x net debt to EBITDA) in order to maximise dividends.
- There have been no questionable related-party transactions of note. Previous M&A newsflow linking Maxis with other Ananda Krishnan companies have been merely speculative. Maxis, in its current form, was relisted in 2009. The operations were previously housed under Maxis Communications, which was privatised and delisted in 2007.
- T. Ananda Krishnan and Ralph Marshall (former Maxis director) are currently embroiled in a corruption case in India in relation to Maxis Communication's 2006 acquisition of the now defunct sister company Aircel.

[1]*Risk Rating & Score* - derived by Sustainalytics and assesses the company's exposure to unmanaged ESG risks. Scores range between 0 - 50 in order of increasing severity with low/high scores & ratings representing negligible/significant risk to the company's enterprise value, respectively, from ESG-driven financial impacts. [2]*Score Momentum* - indicates changes to the company's score since the last update - a negative integer indicates a company's improving risk score; a positive integer indicates a deterioration. [3]*Controversy Score* - reported periodically by Sustainalytics in the event of material ESG-related incident(s), with the impact severity scores of these events ranging from Category 0-5 (0 - no reports; 1 - negligible risks; ...; 5 - poses serious risks & indicative of potential structural deficiencies at the company).

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	Quantitative Parameters (Score: 46)					
	Particulars	**Unit**	**2019**	**2020**	**2021**	**Digi (DIGI MK)**
E	Scope 1 emissions	k tCO2e	9.09	5.08	5.57	10.34
	Scope 2 emissions	k tCO2e	238.84	250.87	245.09	196.78
	Scope 3 emissions	k tCO2e	N/A	N/A	N/A	0.33
	Total	**k tCO2e**	**247.93**	**255.95**	**250.65**	**207.45**
	Carbon intensity per base station	tCO2e	24.7	24.4	23.4	N/A
	Electricity consumption at network sites	GWh	349.55	364.30	357.00	N/A
	Office waste generated per employee	kg	0.6	0.1	0.0	N/A
	% office waste recycled	%	72.7%	85.8%	84.2%	N/A
S	% of women in workforce	%	43.0%	43.0%	44.0%	50.0%
	% of women in management roles	%	29.0%	33.0%	30.0%	45.0%
	Average training hours per employee	Hours	14.8	23.0	34.7	52.6
	Lost time injury frequency (LTIF)	Number	0.84	0.54	0.21	0
G	Key management salary as % of net profit	%	2.2%	2.6%	3.2%	1.5%
	Independent directors on the Board	%	44%	56%	33%	50%
	Female directors on the Board	%	11%	11%	11%	50%
	Customer satisfaction (NPS)	Number	56	57	63	N/A

Qualitative Parameters (Score: 33)

a) Is there an ESG policy in place and whether there is a standalone ESG committee or is it part of a risk committee?

Yes. Maxis' sustainability governance sits with its Strategy team, with direct oversight from the CEO's office.

b) Is the senior management salary linked to fulfilling ESG targets?

Not yet. Management is in the process of integrating sustainability into its wider corporate strategy.

c) Does the company follow the task force of climate related disclosures (TCFD) framework for ESG reporting?

No mention of such plans.

e) Does the company have a mechanism to capture Scope 3 emissions - which parameters are captured?

No.

f) What are the 2-3 key carbon mitigation/water/waste management strategies adopted by the company?

Introduce on-grid solar system to power servers inside Data and Switch Center, optimise use of energy at base stations by using intelligent control and energy efficient motor.

g) Does carbon offset form part of the net zero/carbon neutrality target of the company?

Yes

Target (Score: 0)

Particulars	Target	Achieved
Developing ESG strategy (including setting concrete GHG targets) in the near future	Unspecified	N/A
30% female directors by 2024	2024	N/A

Impact

NA

*** Peer Comparison**

We have benchmarked Maxis's ESG metrics against that of its closest listed peer with publicly available comparable metrics - DiGi.com Bhd (DIGI MK; HOLD; TP: MYR3.50). The peer's ESG standing has been assessed separately.

ESG score	Weights	Scores	Final Score
Quantitative	50%	46	23
Qualitative	25%	33	8
Target	25%	0	0
Total			**31**

As per our ESG assessment, Maxis has an established framework and internal policies, but lacks mid/long-term targets. Maxis' overall ESG score is **31**, which makes its ESG rating **below average** in our view (average ESG rating = 50; refer to Appendix I for our ESG Assessment Scoring).

Time dotCom Bhd

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Risk Rating& Score[1]	26.2 (Medium)
Score Momentum[2]	+0.5
Last Updated	22 Dec 2021
Controversy Score[3] (Updated: 07 Jan 2022)	0 - No reported incidents

Business Model & Industry Issues

- The ESG pressure faced by telcos is overall benign. Telcos are not major emitters and thus do not pose a significant threat to the environment. Major social issues relate to digital inclusion and data protection, and can generally be well-managed from an operational perspective.
- TDC already operates pure fibre networks and has no exposure to copper. Future network expansion will continue to be fibre-based. To mitigate the rising electricity consumption from its growing data centre business, TDC is looking into the possibility of sourcing its electricity supply from renewable sources such as solar.
- Despite being entrepreneur-controlled, there have not been any material governance issues. The most notable related-party transaction happened back in 2012 when CEO Afzal Abdul Rahim injected Global Transit and AIMS group for TDC shares to widen TDC's product offering. TDC has been proactive with capital management through the use of capital repayments and special dividends.
- **TDC scores below-average in our proprietary scoring methodology (see next page) with an overall score of 38/100**.

Material E issues

- Environmental risks are inherently less pertinent for telcos, with operations being neither energy nor emission intensive. TDC is nevertheless monitoring its environmental footprint and looking for ways to reduce its carbon emissions.
- Fibre networks are less energy intensive relative to copper as data is transmitted by light. TDC already operates pure fibre networks and has no exposure to copper.
- TDC's energy consumption is on the rise due to increased demand and supply at its data centres. Management has introduced various power-saving measures to help reduce the impact.
- In line with global best practices, TDC is looking into the possibility of sourcing its electricity supply from renewable sources such as solar.

Material S issues

- The emphasis on digital inclusion and rural connectivity means telcos could be pressured to invest in areas that are not commercially-viable. In Malaysia, the regulator funds such investments through the USP fund (telcos contribute 6% of revenue to the fund annually).
- TDC over-delivered on its premises-passed target by 23% in 2020, as part of its contribution to help bridge the digital divide of the country.
- There were no incidents of data breaches in 2021. All denial-of-service attacks faced in 2021 were arrested and mitigated without any material impact on TDC's systems and/or customers.
- The male-female split of TDC's workforce stood at 60%-40% as at 2021. Female representation at the managerial level stood at 38%.

Key G metrics and issues

- TDC is primarily entrepreneur-controlled and led, with Khazanah owning a passive stake after facilitating the entry of CEO Afzal and team back in 2008.
- The Board currently has 10 Directors, comprising 5 Independent Non-Executive Directors (including the chairman) and 3 Non-Independent Executive Directors (including the CEO), and 2 Non-Independent Non-Executive Director.
- There are presently 3 women on the Board (30% representation). TDC thus fulfils the recommended 30% threshold.
- TDC does not disclose the remuneration details of senior management for confidentiality reasons. The cumulative remuneration of the 3 Executive Directors accounts for c.4% of TDC's net profit.
- TDC has been audited by KPMG for at least the past decade.
- TDC has been proactive with capital management through the use of capital repayments and special dividends to supplement ordinary dividends. The current dividend policy is up to 50% payout.
- There have been no notable related-party transactions in recent years. The most material transaction happened back in 2012 when CEO Afzal injected Global Transit and AIMS group (data centre, international bandwidth trading and submarine cable) for TDC shares to widen TDC's product offering.

[1]*Risk Rating & Score* - derived by Sustainalytics and assesses the company's exposure to unmanaged ESG risks. Scores range between 0 - 50 in order of increasing severity with low/high scores & ratings representing negligible/significant risk to the company's enterprise value, respectively, from ESG-driven financial impacts. [2]*Score Momentum* - indicates changes to the company's score since the last update - a negativeinteger indicates a company's improving risk score; a positive integer indicates a deterioration. [3]*Controversy Score* - reported periodically by Sustainalytics in the event of material ESG-related incident(s), with the impact severity scores of these events ranging from Category 0-5 (0 - no reports; 1 - negligible risks; ...; 5 - poses serious risks & indicative of potential structural deficiencies at the company).

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Quantitative Parameters (Score: 67)						
	Particulars	Unit	2019	2020	2021	TM (T MK)
E	Scope 1 emissions	k tCO2e	N/A	N/A	N/A	11.00
	Scope 2 emissions	k tCO2e	N/A	N/A	N/A	24.55
	Scope 3 emissions	k tCO2e	N/A	N/A	N/A	0.01
	Total	**k tCO2e**	N/A	N/A	N/A	**35.55**
	Energy consumption per data centre area	MWh/sf	0.63	0.72	0.55	N/A
	Waste recycled	kg	N/A	42.8	79.8	N/A
S	% of women in workforce	%	39.0%	40.0%	40.0%	39.8%
	% of women in management roles	%	37.0%	38.0%	38.0%	31.0%
	Average training hours per employee	Hours	24.6	5.5	8.1	41.0
	Lost time injury frequency (LTIF)	Number	0.87	0.79	0.40	0.85
	Data-related breach	Number	0	0	0	N/A
G	CEO salary as % of net profit	%	2.7%	2.3%	0.4%	0.3%
	Independent directors on the Board	%	56%	44%	50%	55%
	Female directors on the Board	%	22%	22%	30%	36%
	Customer satisfaction	%	79	80	83	N/A

Qualitative Parameters (Score: 17)

a) Is there an ESG policy in place and whether there is a standalone ESG committee or is it part of a risk committee?

Yes. Sustainability matters are overseen by its Sustainability Steering Committee.

b) Is the senior management salary linked to fulfilling ESG targets?

Unclear. ESG-related KPIs appear to be under development.

c) Does the company follow the task force of climate related disclosures (TCFD) framework for ESG reporting?

No

e) Does the company have a mechanism to capture Scope 3 emissions - which parameters are captured?

No

f) What are the 2-3 key carbon mitigation/water/waste management strategies adopted by the company?

Implementing energy efficiency best practices at data centres, installing solar panels at headquarters, switching to LED lighting

g) Does carbon offset form part of the net zero/carbon neutrality target of the company?

Yes

Target (Score: 0)		
Particulars	**Target**	**Achieved**
Further incorporation of economic, environment and social elements into business strategy	Unspecified	N/A
Introduce integrated reporting in 3-5 years	2026	N/A

Impact

NA

*** Peer Comparison**

We have benchmarked TDC's ESG metrics against that of its closest listed peer with publicly available comparable metrics - Telekom Malaysia (T MK; Buy; TP: MYR7.80). The peer's ESG standing has been assessed separately.

ESG score	Weights	Scores	Final Score
Quantitative	50%	67	33
Qualitative	25%	17	4
Target	25%	0	0
Total			**38**

As per our ESG assessment, TDC has an established framework and internal policies, but lacks tangible mid/long-term targets. TDC's overall ESG score is **38**, which makes its ESG rating **below average** in our view (average ESG rating = 50; refer to Appendix I for our ESG Assessment Scoring).

UTILITIES

Petronas Gas Bhd

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Risk Rating& Score[1]	31.4 (High)
Score Momentum[2]	-0.4
Last Updated	28 Jul 2022
Controversy Score[3] (Updated: 27 Jul 2022)	1 - Employee Incidents (OSH)

Business Model & Industry Issues

- Midstream energy companies are viewed as enablers of fossil fuels, and thus face some degree of environmental scrutiny. Nevertheless, gas is the cleanest of fossil fuels and is thus deemed as more palatable for the environment.
- The main uses of gas in Malaysia are for electricity generation and industrial heating. Given the limited developmental potential of renewables and the prevailing structure of PPAs, gas will continue to feature very prominently in Malaysia for at least the next decade. The risk of stranded assets is thus low. As the gas infrastructure arm of national oil company PETRONAS, we do not expect PTG to deviate from its gas-centric business scope in the foreseeable future.
- Transactions with parent PETRONAS (also PTG's largest customer) are done on commercial terms. However, with parent PETRONAS being entirely government-owned, PTG's operations and profitability are inevitably affected by government policies. Notably, the government's implementation of Third-Party Access (for national gas supply security) had adversely impacted PTG's transportation tariffs. Separately, PTG has had to dispose its Sarawak pipelines to the Sarawak state oil entity.
- **PTG scores above-average in our proprietary scoring methodology (see next page) with an overall score of 55/100.**

Material E issues

- Within the energy space, gas is the cleanest of fossil fuels and is thus deemed more palatable for the environment relative to other fuel types (such as coal or oil).
- PTG's GHG emission was up from 3.7mt CO2e in 2020 to 4.8mt CO2e on the back of economic reopening. PTG has set an annual emission cap of 5.0mt CO2e until 2024 and has been proactive with the installation of solar PV, air emission monitoring and emission reduction systems.
- PTG's utilities division runs a co-generation plant, which is more fuel efficient relative to conventional combined-cycle gas plants.
- Through the offering of LNG bunkering services at its Pengerang regasification facility, PTG is playing its part to promote the use of gas/LNG (which is environmentally cleaner than bunker fuel) in the shipping world.

Material S issues

- PTG's pipelines are relatively dated. There has not been any material expansion of PTG's pipelines in the past decade. Thus, the typical native land encroachment issues faced by pipeline companies do not presently apply to PTG.
- Health and safety risks are managed in accordance with prevailing PETRONAS group-wide requirements. There have not been major health and safety mishaps (no fatalities) in recent years. Two incidents of injuries were nevertheless reported in 2019.
- PTG has implemented various CSR programmes in the areas of education, environment and social support, in collaboration with Yayasan PETRONAS (the CSR arm of parent PETRONAS) and other NGOs.
- The male-female split of PTG's workforce stood at 88%-12% as at 2021. Female representation at the management level stood at a more commendable 44%.

Key G metrics and issues

- Being part of the PETRONAS group (51%-owned), PTG's governance practices are heavily influenced by parent PETRONAS.
- The Board currently has 10 Directors, comprising of 1 Executive Director (CEO/MD, a PETRONAS appointee), 3 Non-Independent Non-Executive Directors (including the chairman, all PETRONAS appointees) and 6 Independent Non-Executive Directors.
- There are presently 4 women on the Board (40% representation). PTG is supportive of the 30% female representation threshold at the Board.
- PTG discloses only the remuneration details of its CEO. In 2021, the CEO's remuneration of MYR1.2m amounted to <0.1% of PTG's net profit.
- PTG has been audited by KPMG for at least the past decade.
- PTG has not undertaken any material M&As in recent years. Transactions with parent PETRONAS (also PTG's largest customer) are done on commercial terms.
- With parent PETRONAS being entirely government-owned, PTG's operations and profitability are inevitably affected by government policies. The government's implementation of Third-Party Access to enhance gas supply security had adversely impacted PTG's transportation tariffs. Separately, PTG has had to dispose its Sarawak pipelines to the Sarawak state oil entity.
- PTG does not have a formal dividend policy, having in the past maintained a c.70% payout ratio. Nevertheless, it has in recent years adopted a more aggressive stance on capital management, having declared special dividends in 2019, 2020 and 2021 respectively.

[1]***Risk Rating & Score*** - derived by Sustainalytics and assesses the company's exposure to unmanaged ESG risks. Scores range between 0 - 50 in order of increasing severity with low/high scores & ratings representing negligible/significant risk to the company's enterprise value, respectively, from ESG-driven financial impacts. [2]***Score Momentum*** - indicates changes to the company's score since the last update - a negative integer indicates a company's improving risk score; a positive integer indicates a deterioration. [3]***Controversy Score*** - reported periodically by Sustainalytics in the event of material ESG-related incident(s), with the impact severity scores of these events ranging from Category 0-5 (0 - no reports; 1 - negligible risks; ...; 5 - poses serious risks & indicative of potential structural deficiencies at the company).

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	Quantitative Parameters (Score: 19)					
	Particulars	**Unit**	**2019**	**2020**	**2021**	*** Tenaga (TNB MK)**
E	Scope 1 emissions	m tCO2e	4.29	3.63	4.74	39.80
	Scope 2 emissions	m tCO2e	0.07	0.07	0.04	0.19
	Scope 3 emissions	m tCO2e	N/A	N/A	N/A	N/A
	Total	**m tCO2e**	**4.36**	**3.70**	**4.78**	**39.99**
	GHG intensity (Processing)	tCO2e/tonne	0.23	0.25	0.25	N/A
	GHG intensity (Utilities)	tCO2e/MWh	0.24	0.23	0.23	0.55
	Energy intensity (Processing)	GJ/tonne	1.84	1.93	1.90	N/A
	Energy intensity (Utilities)	GJ/tonne	1.29	1.23	1.22	N/A
	Freshwater withdrawals	cu m	7.4	6.9	7.9	N/A
	Number of environmental incidents	number	0	1	0	N/A
	Hazardous waste recycled	%	48%	65%	57%	N/A
	NOx emissions	tonne	13,849	7,134	7,499	N/A
S	% of women in workforce	%	13.0%	13.1%	11.6%	22.1%
	% of women in management roles	%	33.3%	33.3%	44.4%	23.1%
	Lost time injury frequency (LTIF) rate	number	0.21	0.00	0.09	1.03
	Recordable case frequency	number	0.42	0.18	0.09	N/A
G	MD/CEO salary as % of reported net profit	%	0.08%	0.07%	0.06%	0.14%
	Independent directors on the Board	%	50%	50%	60%	67%
	Female directors on the Board	%	50%	50%	40%	33%

Qualitative Parameters (Score: 83)
a) Is there an ESG policy in place and whether there is a standalone ESG committee or is it part of a risk committee?
Yes. It has a Sustainable Development Working Committee headed by the MD/CEO.
b) Is the senior management salary linked to fulfilling ESG targets?
Yes. Sustainability is one of eight material matters incorporated into management's KPIs.
c) Does the company follow the task force of climate related disclosures (TCFD) framework for ESG reporting?
Not yet. Management is aiming for TCFD alignment by 2023.
e) Does the company have a mechanism to capture Scope 3 emissions - which parameters are captured?
No. But Scope 2 and 3 emissions are inherently insignificant for a gas utility.
f) What are the 2-3 key carbon mitigation/water/waste management strategies adopted by the company?
PTG has invested in flare reduction and energy efficiency initiatives, and has begun to supply carbon dioxide (previously a waste product) to customers.
g) Does carbon offset form part of the net zero/carbon neutrality target of the company?
Yes

Target (Score: 100)		
Particulars	**Target**	**Achieved**
Net-zero carbon emissions by 2050	2050	N/A
Annual emission cap limit of 5m tCO2e to 2024	5.0 m	4.8 m
Phase out R22 refrigerants by 2030	2030	N/A
Recycling rate of hazardous waste in 2024	61%	57%
TCFD alignment by 2023	2023	N/A
Zero fatalities, major fires, major loss of primary containment, major security incidents in 2025	0	0
Impact		
NA		
*** Peer Comparison**		
We have benchmarked PTG's ESG metrics against that of its closest listed peer with publicly available comparable metrics - Tenaga Nasional (TNB MK; Hold; TP: MYR8.70). The peer's ESG standing has been assessed separately.		

ESG score	Weights	Scores	Final Score
Quantitative	50%	19	9
Qualitative	25%	83	21
Target	25%	100	25
Total			**55**

As per our ESG assessment, PTG has an established framework, internal policies, and tangible mid/long-term targets. PTG's overall ESG score is **55**, which makes its ESG rating **above average** in our view (average ESG rating = 50; refer to Appendix I for our ESG Assessment Scoring).

Tenaga Nasional Bhd

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Risk Rating& Score[1]	38.1 (High)
Score Momentum[2]	+2.5
Last Updated	19 Jul 2022
Controversy Score[3] (Updated: 28 Sep 2022)	1 - Customer incidents (quality & safety)

Business Model & Industry Issues

- With the commissioning of Jimah East, Malaysia's diversification into coal plants over the past decade has ended. New plants going forward will be gas or solar-based. The unit cost of generation for both gas and solar plants are for now still higher than coal, although this is essentially borne by consumers via the IBR tariff framework.
- Given the prevailing structure of PPAs in Malaysia, coal will however continue to feature very prominently in Peninsular Malaysia's generation mix for at least the next decade. This means the "coal stigma" will continue to accompany Tenaga for the foreseeable future. Should such pressure increase, Tenaga could consider accelerating its renewable expansion (it already has international solar and wind platforms) or potentially de-merging or spinning off its generation unit.
- The push into renewables has seen the increased adoption of solar via solar farms and rooftop solar. From a land optimisation perspective, the technology is probably better suited for rooftops. With the right incentives, Tenaga's panel leasing business could become more significant in contribution.
- **Tenaga scores above-average in our proprietary scoring methodology (see next page) with an overall score of 63/100.**

Material E issues

- Significant coal exposure with coal accounting for over 50% of Peninsular Malaysia's generation mix. However, many of these coal plants are new and utilises ultra-supercritical technology. Meanwhile, the cost of insuring coal plants has risen by 10-20% annually in recent years.
- Balance of generation is largely gas-based, which is still a fossil fuel and thus create carbon emissions. In response, Tenaga has in recent years, been consciously increasing its renewable capacity in line with the government's target of achieving a 20% renewable mix by 2025.
- Large-scale renewable facilities such as solar farms and hydro dams are typically land-intensive (a 50MW farm requires c.200 acres of land) and could have an effect on local biodiversity. In Peninsular Malaysia, there are no longer suitable sites for large dams while solar farms are typically situated on unused agricultural land.

Material S issues

- Average electricity tariffs in 2020 are c.20% higher relative to 2013 levels, steep for an essential service. Nevertheless, households have largely been insulated, with tariffs for the two lowest bands (c.70% of households) having been kept unchanged for the past decade.
- Tenaga was found liable for causing flash floods at Cameron Highlands (Bertam Valley) in 2013 having discharged water from its hydroelectric dam following heavy rains. Tenaga has since proactively engaged preventive measures such as regular cleaning of reservoir and dam, and conducting annual flood evacuation drills.
- Tenaga is a major employer in Malaysia, with a staff count of about 35,000 people of which 23,000 are represented by unions. 21% of Tenaga's employees are female. It also owns and operates a leading university in Malaysia which enrols c.10,000 students.

Key G metrics and issues

- Tenaga's constitution states a minimum of 2 and a maximum of 12 directors. MoF Inc being the special shareholder of Tenaga, has the right to appoint up to six directors.
- There are presently 12 members on Tenaga's board comprising of 1 Executive Director (President/CEO), 3 Non-Independent Non-Executive Directors (including the Chairman) and 8 Independent Non-Executive Directors.
- 3 of the 12 board members (including Chairman and President/CEO are appointees by MoF Inc and Khazanah Nasional.
- In terms of board gender and diversity, 4 of the 12 board members are female, 3 are non-bumiputeras and 7 are of non-finance/accounting backgrounds.
- Tenaga has been audited by PricewaterhouseCoopers for at least the past decade.
- The cumulative remuneration of the CEOs represents less than 0.1% of Tenaga's 2021 normalised net profit.
- Female representation at the management level remains relatively low at 21% among senior management.
- Tenaga's track record with its international acquisitions has been mixed - it has substantially impaired its associates in Turkey (fully written-off) and India a few years after acquisition.
- Tenaga's balance sheet remains relatively under-levered, with a net debt-to-equity of 73% at end 2021. MFRS 16 with its lease liabilities has inflated the reported net gearing to c.1.3x, still a comfortable level.

[1] ***Risk Rating & Score*** - derived by Sustainalytics and assesses the company's exposure to unmanaged ESG risks. Scores range between 0 - 50 in order of increasing severity with low/high scores & ratings representing negligible/significant risk to the company's enterprise value, respectively, from ESG-driven financial impacts. [2] ***Score Momentum*** - indicates changes to the company's score since the last update - a negative integer indicates a company's improving risk score; a positive integer indicates a deterioration. [3] ***Controversy Score*** - reported periodically by Sustainalytics in the event of material ESG-related incident(s), with the impact severity scores of these events ranging from Category 0-5 (0 - no reports; 1 - negligible risks; ...; 5 - poses serious risks & indicative of potential structural deficiencies at the company).

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Quantitative Parameters (Score: 25)						
	Particulars	Unit	2019	2020	2021	* Tata (TPWR IN)
E	Scope 1 emissions	m tCO2e	33.79	39.04	39.80	34.5
	Scope 2 emissions	m tCO2e	0.24	0.22	0.19	0.0
	Scope 3 emissions	m tCO2e	N/A	N/A	N/A	N/A
	Total	**m tCO2e**	**34.03**	**39.26**	**39.99**	**34.5**
	GHG intensity (Scope 1 and 2)	tCO2e/MWh	0.56	0.57	0.55	0.68
	% Coal capacity	%	46%	46%	43%	**68%**
	% Renewable Energy capacity	%	20%	20%	19%	29%
S	% of women in workforce	%	21.0%	21.1%	22.1%	8.1%
	% of women in management roles	%	19.7%	21.7%	23.1%	6.0%
	Lost time injury frequency (LTIF)	number	1.42	1.29	1.03	0.27
	Contribution & sponsorship	MYR m	40	63	40	22
G	MD/CEO salary as % of reported net profit	%	0.17%	0.12%	0.14%	0.6%
	Board salary as % of reported net profit	%	0.25%	0.30%	0.26%	1.0%
	Independent directors on the Board	%	60%	64%	67%	50%
	Female directors on the Board	%	50%	36%	33%	20%

Qualitative Parameters (Score: 100)

a) Is there an ESG policy in place and whether there is a standalone ESG committee or is it part of a risk committee?

Yes. It has an established sustainability framework and a sustainability development committee headed by the CEO.

b) Is the senior management salary linked to fulfilling ESG targets?

Yes. ESG-related targets make up 30% CEO's total KPIs.

c) Does the company follow the task force of climate related disclosures (TCFD) framework for ESG reporting?

Yes

e) Does the company have a mechanism to capture Scope 3 emissions - which parameters are captured?

Yes, but Scope 2 and 3 emissions are inherently insignificant for an integrated electricity utility

f) What are the 2-3 key carbon mitigation/water/waste management strategies adopted by the company?

Tenaga has pledged to significantly increase its RE capacity, while also investing in emerging low-emission / green technologies.

g) Does carbon offset form part of the net zero/carbon neutrality target of the company?

Yes

Target (Score: 100)		
Particulars	**Target**	**Achieved**
Increase RE capacity to 8,300MW by 2025	8,300	3,438
Reduce emission intensity by 35% in 2035 vs 2020 baseline	35%	N/A
Net-zero carbon emissions by 2050	Net 0	N/A
Reduce coal capacity by 50% in 2035	50%	0%
Reduce coal capacity by 100% in 2050	100%	0%
Zero fatalities and LTIP <1.0 in 2050	<1.0	1.0
1% of PAT towards environmental and community programs in 2050	1.0%	1.1%

Impact

NA

*** Peer Comparison**

We have benchmarked TNB's ESG metrics against that of its closest listed peer with publicly available comparable metrics – Tata Power (TPWR IN; Buy; TP: INR300). The peer's ESG standing has been assessed separately.

ESG score	Weights	Scores	Final Score
Quantitative	50%	25	13
Qualitative	25%	100	25
Target	25%	100	25
Total			**63**

As per our ESG assessment, Tenaga has an established framework, internal policies, and tangible mid/long-term targets. Reduction of coal capacity is contingent upon the expiry of existing PPAs. Tenaga's overall ESG score is **63**, which makes its ESG rating **above average** in our view (average ESG rating = 50; refer to Appendix I for our ESG Assessment Scoring).

YTL Power Bhd

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Risk Rating& Score[1]	N/A
Score Momentum[2]	N/A
Last Updated	N/A
Controversy Score[3] (Updated: N/A)	N/A

Business Model & Industry Issues

- YTLP has considerable coal exposure through its 20% effective stake in Jawa Power, a coal-fired power plant in Indonesia with a PPA expiring only in 2030. Despite being only an associate, Jawa Power is YTLP's second biggest net profit contributor. In addition, YTLP is working towards achieving financial close for Tj Jati A, another greenfield coal-fired power plant in Indonesia. Thus, the "coal stigma" will continue to accompany YTLP for the foreseeable future.
- The group's current willingness to participate in greenfield coal-fired and shale oil-fired power plants suggests that ESG concern on its own do not preclude management's investment decisions. We thus expect the group to maintain its current strategy of investing in regulated assets with long-term concessions and attractive returns for the foreseeable future. Aggressive renewable diversification appears unlikely in our view given lean project returns in the space due to increasing crowdedness.
- Despite being family-controlled, there has not been any questionable related-party transaction of note at YTLP. YTLP does not have a set dividend policy, but has been proactive with capital management, having paid out relatively generous cash or stock dividends every year. It is also active in share buybacks.
- **YTLP scores below-average in our proprietary scoring methodology (see next page) with an overall score of 42/100**.

Material E issues

- YTLP has a considerable degree of coal exposure through its 20% effective stake in Jawa Power, a coal-fired power plant in Indonesia. YTLP is also working towards achieving financial close for Tj Jati A, another greenfield coal-fired power plant in Indonesia.
- YTLP also has a 45% stake in Attarat Power, a greenfield shale oil-fired power plant currently under construction in Jordan.
- YTLP's environmental mitigation efforts include Wessex developing waste-to-energy initiatives, Jawa Power investing in renewable-powered mini grids for local communities, and PowerSeraya installing PV systems at its site to provide green energy options to customers.
- YTLP has also been active with conservation and biodiversity initiatives around its prevailing sites in UK and Indonesia.

Material S issues

- There was a material health and safety incident at Wessex Water in Dec 2020, where an explosion of a silo led to four fatalities, three of which were Wessex Water employees. The cause of the incident is presently under investigation.
- YTLP's male-female workforce split stood at 74%-26% as at FY22. There is no female representation among the op-co CEO roles.
- YTLP's Malaysia telecom arm is used by the YTL Group to facilitate education-related CSR initiatives. During the current COVID-19 pandemic, free mobile data and SIM cards were provided to students in government schools, while free mobile devices were given to students from B40 families.

Key G metrics and issues

- YTLP is majority-controlled by the Yeoh Family through parent YTL Corp and the family's vehicle Yeoh Tiong Lay & Sons Holdings Sdn Bhd.
- The Board currently has 12 Directors, comprising 8 Executive Directors and 4 Independent Non-Executive Directors. 7 of the 8 Executive Directors (including the chairman and MD) are siblings.
- There are 3 women on the Board, representing 25% representation. The Board, while recognising the importance of developing female talent, has not set any specific targets on female representation.
- YTLP does not disclose remuneration details of the senior management team due to confidentiality. Remuneration of individual directors is disclosed, with the MD enjoying a total remuneration of MYR5.5m in FY22.
- YTLP has been audited by PricewaterhouseCoopers for at least the past decade.
- YTLP does not have a set dividend policy, but has been proactive with capital management, having paid out relatively generous cash or stock dividends every year. It is also active in share buybacks.
- There has not been any questionable related-party transaction of note. Previous privatisation newsflow (by parent YTL Corp) has thus far been merely speculative.
- YTLP's last major acquisition was that of Singapore's PowerSeraya in 2009. It subsequently acquired the Tuaspring power plant in 2022.

[1]***Risk Rating & Score*** - derived by Sustainalytics and assesses the company's exposure to unmanaged ESG risks. Scores range between 0 - 50 in order of increasing severity with low/high scores & ratings representing negligible/significant risk to the company's enterprise value, respectively, from ESG-driven financial impacts. [2]***Score Momentum*** - indicates changes to the company's score since the last update - a negative integer indicates a company's improving risk score; a positive integer indicates a deterioration. [3]***Controversy Score*** - reported periodically by Sustainalytics in the event of material ESG-related incident(s), with the impact severity scores of these events ranging from Category 0-5 (0 - no reports; 1 - negligible risks; ...; 5 - poses serious risks & indicative of potential structural deficiencies at the company).

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	Quantitative Parameters (Score: 9)					
	Particulars	Unit	2019	2020	2021	* Tenaga (TNB MK)
E	Scope 1 emissions	m tCO2e	3.56	3.24	3.72	39.80
	Scope 2 emissions	m tCO2e	0.10	0.12	0.12	0.19
	Scope 3 emissions	m tCO2e	N/A	N/A	N/A	N/A
	Total	**m tCO2e**	**3.65**	**3.36**	**3.83**	**39.99**
	Fuel consumption	TJ	N/A	57,249	64,213	N/A
	Waste generated	tonnes	N/A	135,599	148,921	N/A
	Waste diverted from disposal	%	N/A	96.9%	97.4%	N/A
S	% of women in workforce	%	N/A	25.0%	26.0%	22.1%
	% of women among senior management (CEOs)	%	0.0%	0.0%	0.0%	23.1%
	Lost time injury frequency (LTIF), Wessex	number	15.04	17.21	14.95	1.03
	Average training per employee	hours	N/A	12.70	14.80	N/A
G	MD/CEO salary as % of reported net profit	%	4.57%	-2.07%	0.44%	0.14%
	Independent directors on the Board	%	33%	33%	33%	67%
	Female directors on the Board	%	25%	25%	25%	33%

Qualitative Parameters (Score: 50)

a) Is there an ESG policy in place and whether there is a standalone ESG committee or is it part of a risk committee?

Yes. YTL's Group Sustainability Committee is responsible for reviewing, monitoring and providing a strategic approach in managing sustainability issues.

b) Is the senior management salary linked to fulfilling ESG targets?

Unclear

c) Does the company follow the task force of climate related disclosures (TCFD) framework for ESG reporting?

No. The YTL Group is presently exploring the TCFD framework.

e) Does the company have a mechanism to capture Scope 3 emissions - which parameters are captured?

No. But Scope 2 and 3 emissions are inherently insignificant for a power utility.

f) What are the 2-3 key carbon mitigation/water/waste management strategies adopted by the company?

PowerSeraya is exploring greener technologies, Wessex Water has invested in renewables, promoting nature-based solutions and increasing the use of electric vehicles.

g) Does carbon offset form part of the net zero/carbon neutrality target of the company?

Yes

Target (Score: 100)

Particulars	Target	Achieved
Carbon Neutral at YTL group by:	2050	N/A
Net-zero operational carbon emissions - Wessex Water	2030	N/A
Net-zero total carbon emissions (including supply chain) - Wessex Water	2040	N/A
Reduction in absolute emissions in 2030 (from 2010 level) - PowerSeraya	60%	N/A

Impact

NA

*** Peer Comparison**

We have benchmarked YTLP's ESG metrics against that of its closest listed peer with publicly available comparable metrics - Tenaga Nasional (TNB MK; Hold; TP: MYR8.70). The peer's ESG standing has been assessed separately.

ESG score	Weights	Scores	Final Score
Quantitative	50%	9	5
Qualitative	25%	50	12
Target	25%	100	25
Total			**42**

As per our ESG assessment, YTLP has an established framework, internal policies, and tangible mid/long-term targets. Emissions and waste generation are however on the uptrend. YTLP's overall ESG score is **42**, which makes its ESG rating **below average** in our view (average ESG rating = 50; refer to Appendix I for our ESG Assessment Scoring).

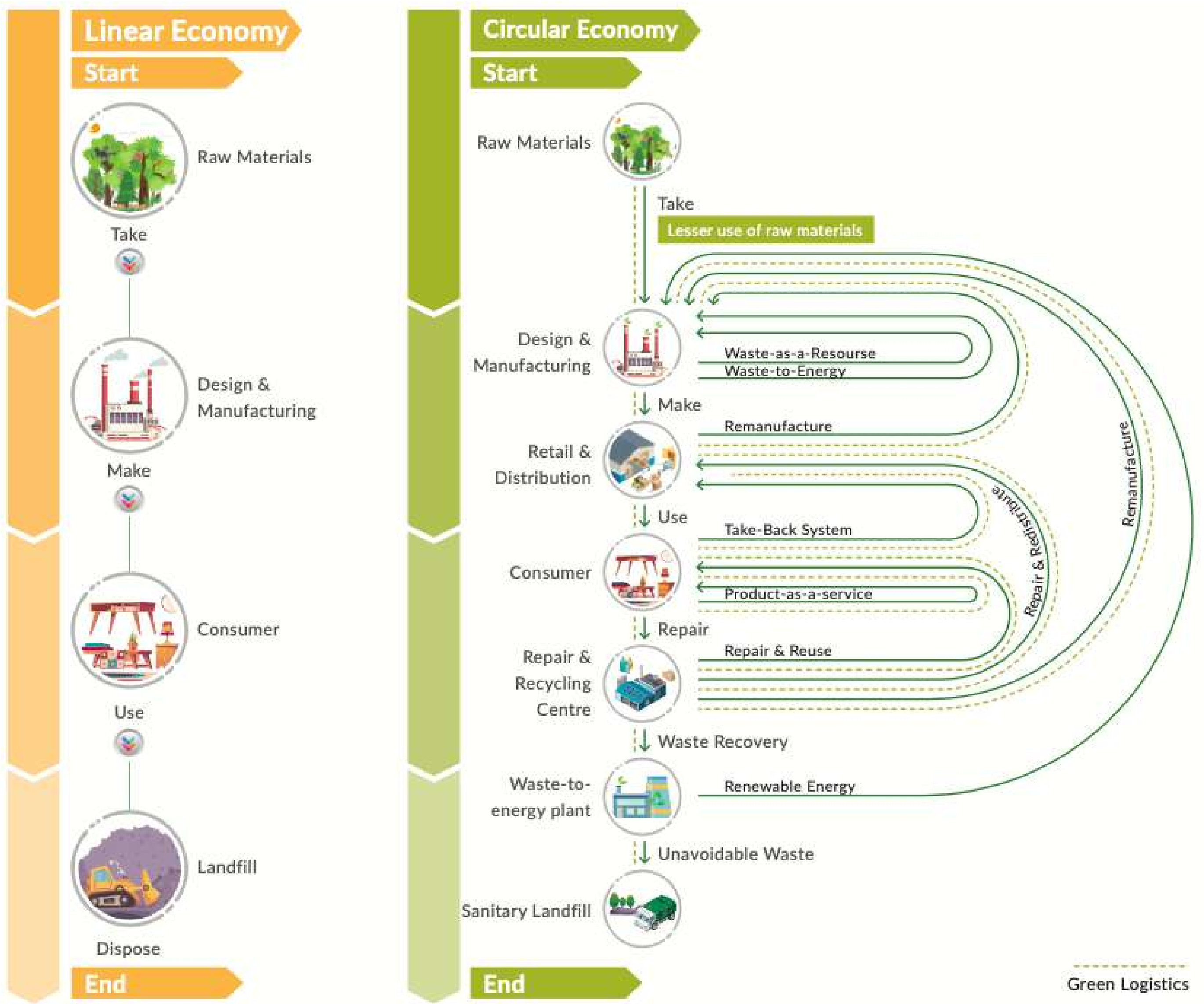
APPENDIX 1: ESG Scoring Methodology

We evaluate the ESG ratings based on quantitative, qualitative and ESG targets. We assign a score for each of these three parameters. The overall rating is based on the weighted average of the scores: quantitative (50%), qualitative (25%) and ESG target (25%).

For the quantitative, qualitative and ESG target, the sub-parameters are assigned a score - ‘0’ for data not available, ‘+1’ for improving trajectory, positive change, ‘Yes’, better than peers or a positive number if historical is not available and ‘-1’ for declining trajectory, negative change, ‘No’, lower than peers or a negative number. The total of the scores of all the sub-parameters is divided by the total number of sub-parameters is the score of each of the three parameters.

The sub-parameters may be different for different industries depending on the key areas to monitor for each industry. A company should achieve a minimum score of 50 for an average ESG rating.

APPENDIX 2: Linear vs. Circular Economy



Source: Twelfth Malaysia Plan (2021-25) under Economic Planning Unit, Prime Minister's Dept

GLOSSARY: Key Sustainability-related terms

No	Term	Definition
1	**Environmental, Social and Governance (ESG)**	The three factors that are considered by an increasing number of businesses, investors, and other stakeholders (alongside more traditional factors) in a variety of decision-making processes (e.g., the undertaking of ESG due diligence as part of an investment, the preparation of ESG-related disclosures by a company, or the preparation of a report by ESG Research Providers). Examples of ESG considerations include a company's sustainability policies (including GHG Emissions), approach to supply chains and ensuring supply chain resilience (including modern slavery issues), labor policies, and governance issues (such as board diversity, reporting systems and processes and good Corporate Governance). A number of organizations establish ESG principles and/or standards that companies can use to guide their ESG-related actions and reporting (e.g., PRI and Sustainable Development Goals). ESG stands for Environmental (e.g. energy consumption, water usage), Social (e.g. talent attraction, supply chain management) and Governance (e.g. remuneration policies, board governance). ESG factors form the basis for the different SI approaches.
2	**Sustainability**	All activity that meets the needs of the present generation without compromising the ability of future generations to meet their needs.
3	**Task Force on Climate-related Financial Disclosures (TCFD)**	An organization devoted to establishing and promoting guiding principles for companies to voluntarily disclose climate-related risks. This information is important to investors because it tells them whether a company is susceptible to climate-related risks and whether the company is developing or has developed plans to mitigate such risks. The Task Force on Climate-related Financial Disclosures (TCFD) has developed voluntary, consistent climate-related financial risk disclosures for use by companies in providing information to investors, lenders, insurers, and other stakeholders.
4	**Net Zero**	A situation in which any greenhouse gas (GHG) emissions are counterbalanced by sequestration efforts, i.e. reforestation. Net zero emissions are achieved when anthropogenic emissions of greenhouse gases to the atmosphere are balanced by anthropogenic removals over a specified period.
5	**Green Building Certification**	Green buildings are designed, built and used in a way that is energy efficient, minimises the use of resources and water, encourages biodiversity and provides a healthy indoor environment. Buildings designed, constructed, operated, maintained, renovated and destroyed using environmentally-friendly and resource-efficient processes.
6	**Carbon Pricing**	Carbon price is the price per unit of avoided or released carbon dioxide (CO2) emission, or its CO2 equivalent (IPCC, 2014). Carbon pricing is an instrument that captures the external costs of greenhouse gas (GHG) emissions— the costs of emissions that the public pays for, such as damage to crops, health care costs from heat waves and droughts, and loss of property from flooding and sea level rise—and ties them to their sources through a price, usually in the form of a price on the carbon dioxide (CO2) emitted.
7	**Sustainalytics**	A private company that supports sustainability-minded investors and the Sustainable Finance market, as a form of outsourced ESG diligence, by providing ESG ratings and research.
8	**Financed emissions**	Financed emissions are emissions generated as a result of financial services, investments and lending by investors and companies that provide financial services. They fall under scope 3, category 15 from the Greenhouse Gas Protocol (GHGP).
9	**Transition Risk**	Transition risk occurs as a result of adjustment to a low-carbon economy. Risks associated with the transition to a lower-carbon global economy, the most common of which relate to policy and legal actions, technology changes, market responses, and reputational considerations. This is in line with the TCFD's definition.
10	**Scope 1-3 emissions**	Categorisation of GHG emissions into where they are emitted along a company's value chain: Scope 1 - direct emissions, scope 2 - indirect emissions from the generation of purchased electricity, scope 3 - other indirect emissions e.g. in supply chain or by customers' use of product.
11	**Sustainable Finance**	Sustainable Finance incorporates climate, green and social finance while also adding wider considerations concerning the longer-term economic sustainability of the organisations that are being funded, as well as the role and stability of the overall financial system in which they operate. The process of taking due account of environmental and social considerations when making investment decisions, leading to increased investment in longer-term and sustainable activities.

12	**Carbon Neutral**	Carbon Neutral is also known as Net Zero CO2 emissions. Net zero carbon dioxide (CO2) emissions are achieved when anthropogenic CO2 emissions are balanced globally by anthropogenic CO2 removals over a specified period. In other words, an individual, organisation or nation is said to be Carbon Neutral when the amount of CO2 removed from the atmosphere is equal to the amount of CO2 emitted into the atmosphere. Having a net zero Carbon Footprint, or in other words, balancing the amount of carbon Emissions released into the Atmosphere with an equivalent amount of carbon removal, or simply eliminating carbon Emissions altogether.
13	**Global Reporting Initiative (GRI)**	Global Reporting Initiative is an international independent standards organization that helps businesses, governments and other organizations understand and communicate their impacts on issues such as climate change, human rights and corruption. The nonprofit organization that created the GRI Sustainability Reporting Standards to guide voluntary corporate sustainability reporting.
14	**Decarbonization**	The process of reducing dependency on carbon power sources in an effort to reduce carbon dioxide emissions specifically, and GHG Emissions in general.
15	**Principles for Responsible Investment (PRI)**	A set of six principles outlined by the United Nations as “voluntary and aspirational” guidelines for “incorporating ESG issues into investment practice.” The principles are as follows: (i) incorporate ESG issues into investment analysis and decision-making, (ii) incorporate ESG principles into ownership and management practices, (iii) seek appropriate disclosure on ESG issues by the subjects of the investment, (iv) promote the PRI within the investment industry, (v) collaborate to optimize effectiveness in implementing the PRI, and (vi) report progress on implementing the PRI. The UN-supported Principles for Responsible Investment (PRI) initiative was launched in 2006. The world’s leading proponent of responsible investment, the PRI is an independent organisation bringing together and supporting an international network of investors to put the six Principles for Responsible Investment into practice. The six Principles are to: Incorporate ESG issues into investment analysis and decision-making processes be active owners and incorporate ESG issues into ownership policies and practices seek appropriate disclosure on ESG issues from invested entities promote acceptance and implementation of the Principles within the investment industry enhance effectiveness in implementing the Principles report on activities and progress towards implementing the Principles.
16	**Nature-Based Solutions**	Actions designed to sustainably manage, protect, and restore ecosystems, addressing societal challenges effectively and adaptively, while also providing human well-being and biodiversity benefits.
17	**Circular Economy**	An economic system concerned with eliminating waste and continued use of resources. An economic framework aimed at eliminating waste. The framework calls for keeping resources in use for as long as possible, to extract the maximum value from them, then recovering and regenerating products at the end of each service life. Implementing a Circular Economy can result in a more competitive economy, as it addresses Climate Change, decreases the amount of waste, drives productivity, allows for growth, and offers a solution to potential resource scarcity.
18	**International Energy Agency (IEA)**	The International Energy Agency works with countries around the world to shape energy policies for a secure and sustainable future.
19	**Green Finance / Bonds**	Any financial initiative, process, product or service that is either designed to protect the natural environment or to manage how the environment impacts finance and investment. Green Finance is broader than Climate Finance in that it also addresses other environmental objectives such as natural resource conservation, biodiversity conservation, and pollution prevention and control.
20	**Electric vehicles**	A vehicle that runs at least partially on electricity. An EV’s electric motor is powered partially or fully by batteries or a fuel cell, which means the vehicle has lower GHG Emissions compared with a motor that is powered by gasoline or diesel.

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