

Malaysia ESG Focus Slow Transition, Improving Disclosures



MIBG Sustainability Research

Malaysia ESG Focus: Slow transition, improving disclosures

Insights from our ESG study of 114 Malaysian companies

This report is an in-depth analysis of corporate sustainability trends of 114 companies (c.70% of MY Mcap) we cover. We also evaluate risks and opportunities in ASEAN and Malaysia stemming from energy transition made necessary by climate change. 48 (or 42%) of the companies we cover scored above the median across 15 ESG metrics, and of these nearly 2/3rd outperformed the MSCI Malaysia Index over 1-3-5 years, suggesting there's a strong correlation between ESG performance and equity returns. (Fig 5).

What's good

Our study found that: a) industrials, real estate/REITs, utilities, materials and transport are leading positive change in ESG; b) 42% of companies we cover scored higher than the median in meeting our 15 ESG metrics; c) 46% of companies have sustainability as part of their KPI for senior management remuneration; d) CO2 emission intensity declined in 2023 vs 2021 in MYR terms; e) companies disclosing Scope 3 emissions have increased by 76% since 2021; f) 63% of companies we cover have 30% women as their total workforce, and 51% of the companies are reporting increase in women in the workforce and on their Boards; g) for 72% of the companies, independent directors make up 50% or more of their Board, and 67% are showing improvement/stability in this area.

What's not so good

Our analysis suggests: a) less than 50% of the companies we cover report usage of renewables; b) only 48% of companies have a net-zero target, and only 8.5% of companies' net zero is aligned with Science Based Targets initiative (SBTi); c) Scope 3 emission disclosures are insufficient for most companies, and only 2 banks disclose their financed emissions; d) Scope 1 emissions increased in 2023 over 2022; and e) only 24% of companies have a standalone Sustainability Board or a Chief Sustainability Officer.

MY is well positioned to accelerate energy transition

Globally, climate change and energy transition face major challenges, such as:
1) shifting to low-carbon sources in electricity generation, industry energy usage and transportation fuel; 2) developing technology and innovation for energy transition; and 3) mobilizing transition finance for mitigation and adaptation. In all of these areas, the financially stronger, high-income economies are able to demonstrate scale and speed.

This is similar within ASEAN, and so far Singapore is leading the transition by developing clear policies, strategies and financing to achieve net zero by 2050. Like S'pore, Malaysia has a strong financial base and pragmatic policies for shifting to a low-carbon economy. However, Malaysia's low adoption of renewable energy is still its weakest link, affecting its corporate net zero implementation and rapid decarbonization at scale.

We believe Malaysia is better placed to adapt to the flood risk in the ASEAN region and will become more competitive in the new-age industries, such as electronics, technology, AI and data centres by scaling up renewable energy, clearly giving it more opportunities than risks. Our favourite sustainability themes in Malaysia are in sectors such as renewable energy EPCC and asset ownership (including selective Utility players). Investors can gain exposure through our bottom-up stock picks (refer page 25).



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Table of Contents

Analysis of ESG data of 114 Malaysian companies we cover	4
ASEAN Energy Transition	26
Opportunities and investment themes for ASEAN from energy transition	44
Malaysia risks & opportunities	50
Annexures	62
MIBG coverage ESG tear sheets	68
AUTOMOTIVE	71
BANKING, FINANCIAL SERVICES & INSURANCE	74
BROADCASTING & SERVICES	85
CONSUMER DISCRETIONARY	87
CONSUMER STAPLES	95
GAMING	101
INDUSTRIALS	107
MATERIALS	111
OIL & GAS	113
PLANTATIONS	119
REAL ESTATE	127
TECHNOLOGY	139
TELECOMMUNICATIONS	150
TRANSPORT & LOGISTICS	155
UTILITIES	160



Analysis of ESG data of 114 Malaysian companies we cover

In the first of our series of 'Country ESG Thematic' reports, we analyzed a selection of 'E'nvironment, 'S'ocial and 'G'overnance parameters for the 114 Malaysian companies we cover. This ESG data aggregation and analysis provides a peek into the corporate sustainability trends in Malaysia. In sections 2 and 3 of this report, we identify the ESG Risks and Opportunities in ASEAN and Malaysia.

Our Malaysia coverage has a combined market capitalization of USD309.2b, or c. 66% of the Bursa Malaysia exchange's market capitalization of USD471.6b. Excluding MAYBANK (USD30.3b), these companies make up 70% of the exchange's market capitalization. This, in our view, presents a substantial sample size of the trends of corporate sustainability and performance in Malaysia.

To understand the ESG trends for the companies under our coverage, we collated data across 6 reporting standards, 8 environmental data metrics, 3 parameters in Social and 4 in Governance. Below is a summary of the number of companies that fulfil each of the ESG parameters.

Fig 1: Summary of our analysis: the number of companies across 18 sectors that fulfil our various ESG parameters

Particulars	Auto- motive	BFSI	Broad- casting	Cons. Discret.	Con. Staples	-nerov	Gaming	Health- care	Indust- rials	Mater- ials	Oil & gas
Number of companies	3	12	2	8	7	2	4	3	4	2	7
Reporting standards											
Materiality Matrix	3	12	2	8	7	1	4	3	4	2	7
GRI	2	11	1	8	7	2	4	3	4	2	5
Integrated reporting	0	5	1	2	1	1	2	0	1	2	0
TCFD	1	10	1	2	4	1	1	1	3	1	6
SBTi	0	1	0	0	1	0	0	0	0	0	0
External assurance	1	6	1	3	2	1	1	3	3	1	1
Environment											
Scope 1 emissions trending lower	0	3	1	2	3	0	1	0	3	1	1
Scope 1 emissions intensity trending lower	0	4	1	2	2	0	2	0	1	1	3
Scope 2 emissions trending lower	0	5	2	2	5	2	2	0	4	1	1
Scope 2 emissions intensity trending lower	1	8	1	2	2	0	2	1	1	1	4
Scope 3 disclosures	1	10	1	4	4	2	2	2	4	0	4
Net zero/carbon neutral	1	10	1	1	3	0	0	2	1	1	7
Emissions reduction target	1	6	1	3	2	1	1	2	3	1	4
Renewable energy usage	3	9	1	6	7	2	2	2	4	1	2
Social											
Women in workforce trending higher/stable	0	10	1	4	2	1	3	2	2	2	6
Women in management roles trending	1	9	2	5	3	0	3	1	4	1	4
higher/stable	'	7	2	3	3	U	3	ı	4	ı	4
Average training hours trending higher/stable	1	7	2	4	1	1	1	1	2	2	7
Governance											
Mgmt. ESG KPI	0	8	0	4	0	0	4	2	2	1	1
Stand. board Sus. committee	1	5	0	2	0	1	1	0	1	0	0
Women dir. trending higher/stable	2	11	0	6	4	2	3	3	4	1	5
Independent dir. trending higher/stable	1	9	0	6	7	2	4	3	4	2	3

Source: Maybank IBG Research



.....continued

Particulars	Planta- tions	Real estate	REIT	Tech	Tele- com	Trans- port	Utilities	Total
Number of companies	8	12	9	13	5	6	7	114
Reporting standards								
Materiality Matrix	8	12	9	13	5	6	6	112
GRI	7	11	7	10	5	5	7	101
Integrated reporting	0	6	6	3	4	4	0	38
TCFD	4	9	6	7	5	4	3	69
SBTi	1	2	1	0	2	0	1	9
External assurance	2	6	4	2	3	2	2	44
Environment								
Scope 1 emissions trending lower	3	3	1	2	3	2	3	32
Scope 1 emissions intensity trending lower	4	5	1	3	3	2	4	38
Scope 2 emissions trending lower	3	2	2	4	2	1	1	39
Scope 2 emissions intensity trending lower	3	6	5	6	2	5	3	53
Scope 3 disclosures	4	10	7	6	2	6	4	73
Net zero/carbon neutral	4	9	4	6	3	5	7	65
Emissions reduction target	4	7	5	8	2	5	3	59
Renewable energy usage	7	8	4	8	3	4	5	78
Social								
Women in workforce trending higher/stable	1	7	4	9	2	3	5	64
Women in management roles trending higher/stable	4	8	6	8	4	4	5	72
Average training hours trending higher/stable	2	11	7	7	1	4	3	64
Governance								
Mgmt. ESG KPI	3	8	3	5	2	5	5	53
Stand. board Sus. committee	1	5	5	2	1	2	0	27
Women dir. trending higher/stable	7	11	6	8	3	5	6	87
Independent dir. trending higher/stable	5	5	6	10	2	3	4	76

Source: Maybank IBG Research

We did an exercise by scoring companies in our coverage based on 15 'E', 'S' and 'G' parameters (Fig 3). Scores are based on - positive trend or 'Yes' scores '1', and negative trend or 'No' scores '0'. The median score of our coverage is 8. We found 48 companies (or 42% of our coverage) scored more than the median. Industrials and real estate had 75% companies with a score of more than 8, utilities had 57%, banking, financial services and insurance (BFSI), broadcasting, gaming, materials and transport had 50% companies, and REIT had 44% companies scoring more than the median score.

Fig 2: ESG parameters used for the scoring exercise

Environment (8)	Social (3)	Governance (4)
Scope 1 trend (2021-2023)	Women in workforce trend (2021-2023)	Standalone board Sustainability Committee
Scope 1 intensity trend (2021-2023)	Women in management roles trend (2021-2023)	Management ESG KPI
Scope 2 trend (2021-2023)	Average training hours trend (2021-2023)	Women directors trend (2021-2023)
Scope 2 intensity trend (2021-2023)		Independent directors trend (2021-2023)
Scope 3 disclosures		
Net zero/carbon neutral target		
Emissions reduction target		
Renewable energy usage		

Source: Maybank IBG Research



Fig 3: 42% companies score higher than the coverage median score of 8, based on 15 ESG parameters

						Sc	core							Total
Industry	2	3	4	5	6	7	8	9	10	11	12	13	14	companies
Automotive	2							1						3
BFSI					1	2	3	1	1		2	1	1	12
Broadcasting				1				1						2
Cons. Discret.	1	1			3	2	1		1					9
Con. Staples			1	1	1	1		1			1			6
Energy						2								2
Gaming					2			1	1					4
Healthcare		1					1		1					2
Industrials							1	1	1			1		4
Materials		1										1		2
Oil & gas				1	2	1	1	1		1				7
Plantations	1	1	2				1		1		2			8
Real estate		1		1		1		3	3	3				12
REIT	1			1	2	1		2	1		1			9
Technology	1	1		2	1	1	4	1		1	1			13
Telecom			2	1						2				5
Transport						2	1	1			1	1		6
Utilities					1	1	1	2	2					7
Total companies	6	6	5	8	13	14	14	16	12	7	8	4	1	114

Source: Maybank IBG Research

We also compared the above scoring exercise to the Maybank IBG Research ESG score. Clearly all the companies, which scored more than the median score has an MIBG ESG score of more than 50.

Fig 4: Companies scoring higher than median using the above parameters in line with ESG score of more than 50

Particulars	Industry	Bbg code	CP (MYR)	Rating	TP (MYR)	Score	MIBG ESG score
CIMB Group Holdings	BFSI	CIMB MK	8.21	BUY	9.20	14	69
Petronas Chemicals	Materials	PCHEM MK	4.53	SELL	4.18	13	65
Press Metal Aluminium	Industrials	PMAH MK	4.69	BUY	5.70	13	63
Public Bank	BFSI	PBK MK	4.47	BUY	5.40	13	73
Westports Holdings	Transport	WPRTS MK	4.40	BUY	5.38	13	70
Alliance Bank	BFSI	ABMB MK	5.02	BUY	5.30	12	70
Hong Leong Bank	BFSI	HLBK MK	20.68	BUY	24.30	12	71
IOI Corporation	Plantations	IOI MK	3.98	HOLD	3.94	12	75
MISC Bhd	Transport	MISC MK	7.55	HOLD	8.09	12	67
My EG Services	Technology	MYEG MK	0.88	BUY	1.68	12	66
Nestle (Malaysia)	Consumer Staples	NESZ MK	99.42	BUY	111.50	12	65
SD Guthrie	Plantations	SDG MK	4.90	BUY	5.20	12	61
Sunway REIT	REITs	SREIT MK	1.83	HOLD	1.86	12	71
Axiata Group	Telecommunications	AXIATA MK	2.27	BUY	3.20	11	61
Eco World Development	Real Estate	ECW MK	1.81	BUY	1.96	11	69
Gamuda	Real Estate	GAM MK	8.75	BUY	9.60	11	75
Sime Darby Property	Real Estate	SDPR MK	1.38	HOLD	1.40	11	63
Telekom Malaysia	Telecommunications	T MK	6.36	BUY	7.50	11	65
Yinson Holdings	Oil & Gas	YNS MK	2.58	BUY	4.78	11	71
AEON Co. (M)	Consumer Discretionary	AEON MK	1.41	BUY	1.86	10	65
Allianz Malaysia	BFSI	ALLZ MK	20.40	BUY	24.85	10	78
IJM Corporation	Real Estate	IJM MK	2.97	BUY	3.70	10	68
KPJ Healthcare	Health Care	KPJ MK	2.21	BUY	2.32	10	67
Malakoff Corporation	Utilities	MLK MK	0.84	HOLD	0.80	10	50
Mega First Corporation	Utilities	MFCB MK	4.26	HOLD	4.80	10	60
Sarawak Oil Palms	Plantations	SOP MK	3.45	BUY	4.10	10	46
Sports Toto	Gaming	SPTOTO MK	1.56	BUY	1.65	10	61
Sunway	Real Estate	SWB MK	4.72	HOLD	4.37	10	65
Sunway Construction Group	Real Estate	SCGB MK	4.49	SELL	3.70	10	72
Top Glove	Industrials	TOPG MK	1.11	HOLD	1.08	10	56
Astro Malaysia	Broadcasting	ASTRO MK	0.23	HOLD	0.28	9	62
Axis REIT	REITs	AXRB MK	1.73	BUY	2.12	ý	59
Bank Islam Malaysia	BFSI	BIMB MK	2.77	HOLD	2.75	ý	57
Bermaz Auto Berhad	Automotive	BAUTO MK	2.09	BUY	3.04	ý	57
Capital A	Transport	CAPITALA MK	1.00	HOLD	1.00	ģ	59
CapitaLand Malaysia Trust	REITs	CLMT MK	0.67	BUY	0.73	ý	62
Eco World International	Real Estate	ECWI MK	0.30	HOLD	0.27	ý	62
Frontken Corp.	Technology	FRCB MK	3.99	BUY	4.95	ý	65
Genting Bhd	Gaming	GENT MK	3.78	BUY	5.83	9	52
Heineken Malaysia	Consumer Staples	HEIM MK	23.70	BUY	30.20	ý	65
Kossan Rubber Industries	Industrials	KRI MK	2.34	BUY	2.49	9	53
SP Setia	Real Estate	SPSB MK	1.37	BUY	1.64	9	57
Tenaga Nasional	Utilities	TNB MK	14.38	HOLD	14.00	9	64
UEM Sunrise	Real Estate	UEMS MK	0.97	HOLD	1.00	9	63
Wasco	Oil & Gas	WSC MK	1.00	BUY	1.67	9	63
			3.15		4.70	9	58
YTL Power	Utilities	YTLP MK	3.13	BUY	4.70	9	36

Source: Maybank IBG Research



Fig 5: 60-66% of companies scoring higher than median outperformed MSCI Malaysia over 1-3-5 yr period

			СР	MCAP		utperformance rperformance	1
Particulars	Industry	Bbg code	(MYR)	(MYRm)	1y	3y	5у
CIMB Group Holdings	BFSI	CIMB MK	8.21	88,008	32.6	17.6	11.7
Petronas Chemicals	Materials	PCHEM MK	4.53	36,240	-36.2	-15.4	-5.1
Press Metal Aluminium	Industrials	PMAH MK	4.69	38,644	-13.5	-8.3	13.7
Public Bank	BFSI	PBK MK	4.47	86,766	-3.8	1.8	3.3
Westports Holdings	Transport	WPRTS MK	4.40	15,004	15.2	-2.0	1.2
Alliance Bank	BFSI	ABMB MK	5.02	7,771	18.2	19.8	11.5
Hong Leong Bank	BFSI	HLBK MK	20.68	44,828	-4.4	2.3	4.5
IOI Corporation	Plantations	IOI MK	3.98	24,391	-14.1	-2.9	-2.5
MISC Bhd	Transport	MISC MK	7.55	33,701	-6.3	2.6	0.2
My EG Services	Technology	MYEG MK	0.88	6,589	-3.0	-9.4	7.7
Nestle (Malaysia)	Consumer Staples	NESZ MK	99.42	23,314	-29.3	-11.9	-7.7
SD Guthrie	Plantations	SDG MK	4.90	31,812	-2.7	4.0	-0.7
Sunway REIT	REITs	SREIT MK	1.83	6,267	10.7	8.9	2.2
Axiata Group	Telecommunications	AXIATA MK	2.27	20,845	-6.4	-18.0	-11.6
Eco World Development	Real Estate	ECW MK	1.81	5,337	67.2	23.9	26.4
Gamuda	Real Estate	GAM MK	8.75	24,690	74.0	42.6	20.5
Sime Darby Property	Real Estate	SDPR MK	1.38	9,385	122.4	24.5	15.6
Telekom Malaysia	Telecommunications	T MK	6.36	24,408	17.9	3.2	13.1
Yinson Holdings	Oil & Gas	YNS MK	2.58	7,589	0.1	-1.0	-3.3
AEON Co. (M)	Consumer Discretionary	AEON MK	1.41	1,980	25.1	-2.2	-2.3
Allianz Malaysia	BFSI	ALLZ MK	20.40	3,663	18.5	18.6	11.8
IJM Corporation	Real Estate	IJM MK	2.97	10,413	49.9	21.9	10.4
KPJ Healthcare	Health Care	KPJ MK	2.21	9,645	53.5	20.7	17.5
	Utilities	MLK MK	0.84	4,105	32.3	3.1	3.9
Malakoff Corporation	Utilities	MFCB MK	4.26	4,015	9.0	2.4	13.1
Mega First Corporation	REITs	PREIT MK	3.45		17.2	4.8	0.3
Pavilion REIT				5,454			
Sarawak Oil Palms	Plantations	SOP MK	1.56	3,078	14.2	7.2	16.2
Sports Toto	Gaming	SPTOTO MK	4.72	2,105	-3.1	-8.9	-8.2
Sunway	Real Estate	SWB MK	4.49	26,852	126.1	33.5	21.1
Sunway Construction Group	Real Estate	SCGB MK	1.11	5,789	124.5	39.8	19.2
Top Glove	Industrials	TOPG MK	0.23	8,893	37.5	-30.9	-5.2
Astro Malaysia	Broadcasting	ASTRO MK	1.73	1,174	-51.0	-39.9	-28.0
Axis REIT	REITs	AXRB MK	2.77	3,478	-11.2	-1.5	3.4
Bank Islam Malaysia	BFSI	BIMB MK	2.09	6,278	16.0	-4.5	-1.0
Bermaz Auto Berhad	Automotive	BAUTO MK	1.00	2,443	-25.4	14.1	2.6
Capital A	Transport	CAPITALA MK	0.67	4,323	8.7	-9.8	-14.9
CapitaLand Malaysia Trust	REITs	CLMT MK	0.30	1,915	18.4	6.4	-4.4
Eco World International	Real Estate	ECWI MK	3.99	720	-21.8	13.4	1.3
Frontken Corp. Bhd	Technology	FRCB MK	3.78	6,313	11.0	-3.0	23.8
Genting Bhd	Gaming	GENT MK	23.70	14,555	-12.1	-9.7	-6.4
Heineken Malaysia	Consumer Staples	HEIM MK	2.34	7,160	-14.9	0.4	-0.4
Kossan Rubber Industries	Industrials	KRI MK	1.37	5,971	45.5	-3.1	3.3
SP Setia	Real Estate	SPSB MK	14.38	6,853	59.0	-6.2	1.9
Tenaga Nasional	Utilities	TNB MK	0.97	83,590	31.7	13.9	3.8
UEM Sunrise	Real Estate	UEMS MK	1.00	4,881	11.9	31.6	5.4
Wasco	Oil & Gas	WSC MK	3.15	774	3.3	10.2	-2.4
YTL Power	Utilities	YTLP MK	8.21	25,865	37.3	65.2	39.2

Source: Bloomberg, Maybank IBG Research

MIBG updated ESG scores show improving ESG profile of our coverage

We also analysed the coverage using our proprietary ESG score. We evaluate the ESG score based on quantitative and qualitative factors and ESG targets, which are material to attain sustainable business outcomes for the company. The ESG scoring template is split into three sections: quantitative parameters, qualitative factors and ESG targets. We have assigned weights for quantitative at 50%, qualitative and target at 25% each. Scoring is based on 3-year trend data - positive trend scores "+1", negative trend scores "-1" and stable trend scores a "0". ESG score of more than 50 would suggest that the company a) has put in place a strategy to minimize ESG risk and maximize ESG opportunity, b) is improving its performance across the various 'E', 'S' and 'G' parameters and c) has set targets which will help it remain ahead of the race on both risks and opportunities.

Out of the 114 companies analysed, 80% of companies scored 50 or more with 47% companies scoring more than 60. 12% companies scored between 40-49 and 8% companies scoring less than 40. We believe this clearly suggests that companies are looking at improving reducing their ESG risk. Among the industries, BFSI, energy, healthcare, industrials, transport and utilities had all its companies with a score of 50 or more.

Fig 6: 80% of MIBG coverage companies score 50 or more on proprietary MIBG ESG score template

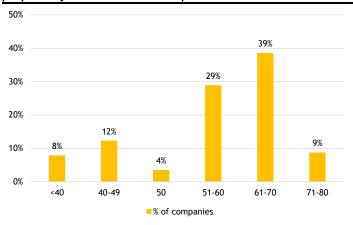
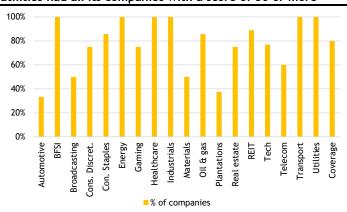


Fig 7: BFSI, energy, healthcare, industrials, transport and utilities had all its companies with a score of 50 or more



Source: Companies, Maybank IBG Research

Source: Companies, Maybank IBG Research

We also analysed the change in ESG score. Of the 114 companies, 20 companies were scored for the first time. Of the remaining 94 companies, 63 companies reported an improvement in the MIBG ESG score and seven had no change in MIBG ESG score whereas 24 companies reported a decline in the ESG score. The increase in score is driven by better disclosures and improvement in ESG performance. Also, of the companies that reported a decline in ESG score, 21 companies still had a score of 50 or more with only 3 companies had a score of less than 50.

Fig 8: 55% companies report improvement in MIBG ESG score and 21% companies report decline

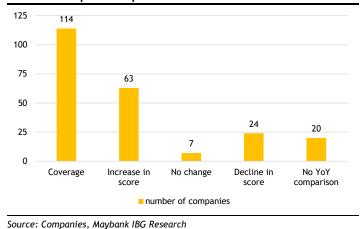
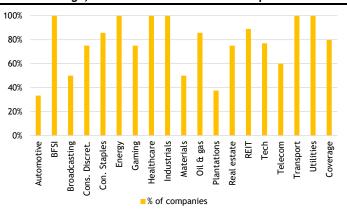


Fig 9: Industrials and plantations had all its companies report a positive change, BFSI at 83% and consumer staples at 86%



Source: Companies, Maybank IBG Research

Company	Industry	Bbg code	CP (MYR)	Rating	TP (MYR)	MIBG Sco
Allianz Malaysia	BFSI	ALLZ MK	20.40	BUY	24.85	
Samuda	Real Estate	GAM MK	8.75	BUY	9.60	
OI Corporation	Plantations	IOI MK	3.98	HOLD	3.94	
CE Capital Bhd	BFSI	RCE MK	1.70	HOLD	1.45	
ublic Bank	BFSI	PBK MK	4.47	BUY	5.40	
unway Construction Group	Real Estate	SCGB MK	4.49	SELL	3.70	
ong Leong Bank	BFSI	HLBK MK	20.68	BUY	24.30	
inway REIT	REITs	SREIT MK	1.83	HOLD	1.86	
		YNS MK		BUY	4.78	
inson Holdings	Oil & Gas		2.58			
liance Bank	BFSI	ABMB MK	5.02	BUY	5.30	
estports Holdings	Transport	WPRTS MK	4.40	BUY	5.38	
MB Group Holdings	BFSI	CIMB MK	8.21	BUY	9.20	
OS Digital Berhad	Technology	CTOS MK	1.28	BUY	1.65	
o World Development	Real Estate	ECW MK	1.81	BUY	1.96	
ari Amertron	Technology	INRI MK	2.94	HOLD	3.30	
S. Industry	Technology	VSI MK	1.08	BUY	1.28	
rsa Malaysia	BFSI	BURSA MK	8.91	HOLD	9.50	
ng Leong Financial Group	BFSI	HLFG MK	18.56	BUY	22.70	
A Corporation	Real Estate	IJM MK	2.97	BUY	3.70	
B Bank	BFSI	RHB MK	6.49	BUY	6.80	
J Healthcare	Health Care	KPJ MK	2.21	BUY	2.32	
SC Bhd	Transport	MISC MK	7.55	HOLD	8.09	
MAX System Bhd	Technology	ITMAX MK	3.45	BUY	4.40	
EG Services	Technology	MYEG MK	0.88	BUY	1.68	
ON Co. (M)	Consumer Discretionary	AEON MK	1.41	BUY	1.86	
ontken Corp. Bhd	Technology	FRCB MK	3.99	BUY	4.95	
ineken Malaysia			23.70	BUY	30.20	
•	Consumer Staples	HEIM MK				
stle (Malaysia)	Consumer Staples	NESZ MK	99.42	BUY	111.50	
tronas Chemicals	Materials	PCHEM MK	4.53	SELL	4.18	
Resources	Consumer Staples	QLG MK	4.76	HOLD	4.70	
nway	Real Estate	SWB MK	4.72	BUY	4.37	
lekom Malaysia	Telecommunications	T MK	6.36	BUY	7.50	
MB Holdings	BFSI	AMM MK	5.18	BUY	5.95	
rtalega	Industrials	HART MK	3.45	BUY	4.31	
D.I.Y. Group (M)	Consumer Discretionary	MRDIY MK	1.83	BUY	2.35	
nhill Utilities	Utilities	RAHH MK	1.38	SELL	0.90	
naga Nasional	Utilities	TNB MK	14.38	HOLD	14.00	
relius Technologies	Technology	ATECH MK	2.88	BUY	4.02	
Nature Bhd	Consumer Discretionary	INNATURE MK	0.21	HOLD	0.23	
ess Metal Aluminium	Industrials	PMAH MK	4.69	BUY	5.70	
ne Darby Property	Real Estate	SDPR MK	1.38	HOLD	1.40	
M Sunrise	Real Estate	UEMS MK	0.97	HOLD	1.00	
ISCO	Oil & Gas	WSC MK	1.00	BUY	1.67	
tro Malaysia	Broadcasting	ASTRO MK	0.23	HOLD	0.28	
pitaLand Malaysia Trust	REITs	CLMT MK	0.67	BUY	0.73	
o World International	Real Estate	ECWI MK	0.30	HOLD	0.73	
iata Group	Telecommunications	AXIATA MK	2.27	BUY	3.20	
Guthrie	Plantations	SDG MK	4.90	BUY	5.20	
orts Toto	Gaming	SPTOTO MK	1.56	BUY	1.65	
N Holdings	Consumer Staples	DXN MK	0.49	BUY	0.80	
m Fresh Berhad	Consumer Staples	FFB MK	1.75	BUY	2.05	
CCP Stapled Group	REITs	KLCCSS MK	8.04	HOLD	8.15	
	11.11.1	11ECD 1111			4.80	
ga First Corporation	Utilities	WECR WK	4.26	HOLD		
rox Corp	Technology	VITRO MK	3.41	SELL	3.40	
s REIT	REITs	AXRB MK	1.73	BUY	2.12	
pital A	Transport	CAPITALA MK	1.00	HOLD	1.00	
lsberg Brewery Malaysia	Consumer Staples	CAB MK	20.48	BUY	23.10	
L Power	Utilities	YTLP MK	3.15	BUY	4.70	
Asia X Bhd	Transport	AAX MK	1.94	BUY	2.71	
nk Islam Malaysia	BFSI	BIMB MK	2.77	HOLD	2.75	
rmaz Auto Berhad	Automotive	BAUTO MK	2.09	BUY	3.04	
lcomDigi	Telecommunications	CDB MK	3.34	BUY	4.50	
tronas Gas	Utilities	PTG MK	17.66	HOLD	18.00	
Setia	Real Estate	SPSB MK	1.37	BUY	1.64	
ala Lumpur Kepong	Plantations	KLK MK	21.96	HOLD	21.80	
o Glove	Industrials	TOPG MK	1.11	HOLD	1.08	
ift Haulage	Transport	SWIFT MK	0.45	HOLD	0.49	
log Group	Oil & Gas	DLG MK	1.93	BUY	3.16	
timax Holdings	Health Care	OPTIMAX MK	0.65	BUY	0.87	
s Malaysia	Utilities	GMB MK	3.86	HOLD	3.60	
		KRI MK	2.34	BUY		
ssan Rubber Industries	Industrials				2.49	
mssol Group Bhd	Technology	RAMSSOL MK	0.72	BUY	1.00	
nting Bhd	Gaming	GENT MK	3.78	BUY	5.83	
on Offshore	Oil & Gas	ICON MK	1.01	HOLD	1.19	
mi Armada	Oil & Gas	BAB MK	0.54	BUY	0.68	
lesto Energy Berhad	Oil & Gas	VEB MK	0.19	BUY	0.32	
gnum Berhad		MAG MK	1.23	BUY	1.33	
	Gaming					
alakoff Corporation	Utilities	MLK MK	0.84	HOLD	0.80	
news Holdings	Consumer Discretionary	MNHB MK	0.62	BUY	0.80	
me Darby Bhd	Consumer Discretionary	SIME MK	2.22	BUY	3.09	

Source: Bloomberg, Maybank IBG Research

November 19, 2024



Sustainability/ESG not all about risk but also offers opportunity

Most companies currently are viewing sustainability/ESG from the lens of risk. However, we believe it also offers opportunity for growth and expansion. The two obvious sectors at the forefront of opportunity: Banks (offering sustainability linked debt and products) and utilities (shifting to renewable energy). All Malaysian banks have set targets for sustainability-linked products. Similarly, all the electric utilities have set targets for adoption of renewable energy. For the other sectors, currently there is not much disclosure available in terms of the opportunities. However, we see opportunities for consumer discretionary and staples, industrials, plantation and technology sectors to name a few.

Within consumer discretionary/staples the opportunity lies in products with better nutritional values or products that emit lower emissions in the sourcing or manufacturing process. The best example here would be plant-based meat or dairy products. Berjaya Food (BFD MK, CP MYR0.36, SELL, TP MYR0.25) which is (i) expanding its plant-based menu options in Starbucks; (ii) 100% plant-based menu at Joybean, with soymilk free from hormones, added oil, preservatives, colouring and 100% non-GMO Canadian soybeans; (iii) introduced KRR Meatless Cutlet Mac & Cheese Burger.

Cypark Resources (CYP MK, CP MYR0.89, HOLD, TP MYR0.73) is carving out a strong positioning in waste management and renewable energy and Solarvest Holdings (SOLAR MK, CP MYR1.63, BUY, MYR1.84) which offers engineering, procurement and construction (EPC) for renewable projects.

In industrials and technology, there is opportunities to offer products across electric vehicles, battery manufacturing and storage, renewable energy etc. Leading examples include Press Metal Aluminum (PMAH MK, CP MYR4.69, BUY, TP MYR5.70) working on battery casings and Greatech Technology (GREATEC MK, CP MYR2.03, BUY, TP MYR3.25) offerings products across EV, solar, energy storage etc.

Plantations also offer opportunity in renewable energy and nature based solutions based carbon credits. SD Guthrie (SDG MK, CP MYR4.90, BUY, TP MYR5.20) is setting up large scale solar power projects.

Disclosure levels improving for ESG/Sustainability related data

Bursa Malaysia has increased the ESG/sustainability related disclosure requirements. Bursa Malaysia upgraded its ESG disclosures in 2023, which now includes disclosure of material factors, part reference to Task Force on Climate-related Financial Disclosures (TCFD) and disclosure of multiple E, S and G factors. This is illustrated in the charts below that show more companies having disclosures. The other encouraging factor is that 46% of Malaysian companies we cover have sustainability KPIs as part of senior management remuneration. However, only 24% of companies have a standalone sustainability board and/or a dedicated sustainability officer. Sustainability is overseen by the board risk committee for one-third of the Malaysian companies we cover.

November 19, 2024

Fig 11: Most companies are disclosing a materiality matrix and following global reporting initiative (GRI) disclosures

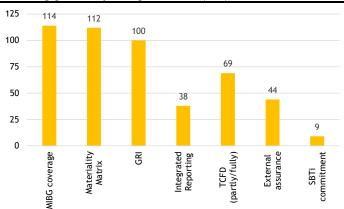
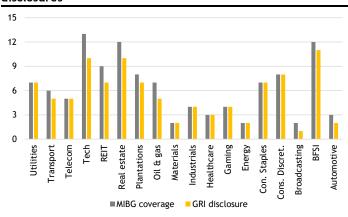
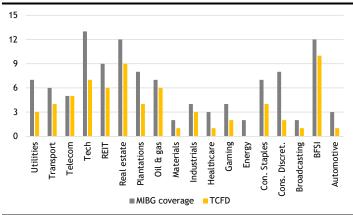


Fig 13: Tech, BFSI and real estate companies report using GRI disclosures



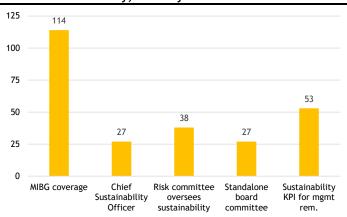
Source: Companies, Maybank IBG Research

Fig 15: TCFD adoption is poor, except in BFSI and real estate



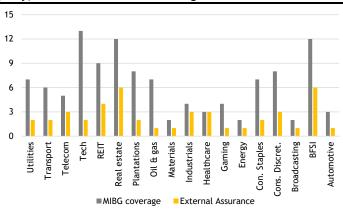
Source: Companies, Maybank IBG Research

Fig 12: 46% companies have senior management remuneration linked to sustainability, but very few have dedicated boards



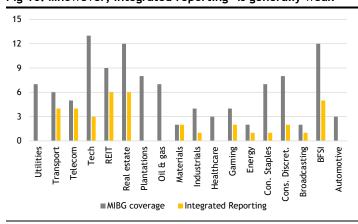
Source: Companies, Maybank IBG Research

Fig 14: External assurance, ie certification of data by thirdparty, of ESG disclosures is low in general



Source: Companies, Maybank IBG Research

Fig 16: ...however, Integrated reporting* is generally weak



Source: Companies, Maybank IBG Research *Integrated reporting framework of the IFRS foundation

Fig 17: BFSI, REIT and real estate lead in terms of having a standalone board sustainability committee

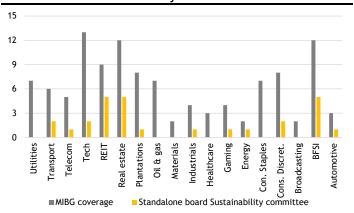
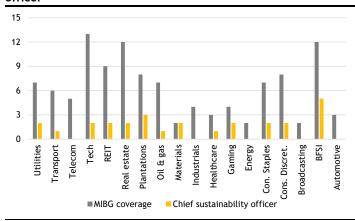
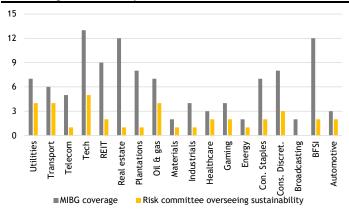


Fig 19: BFSI and plantations have a dedicated sustainability officer



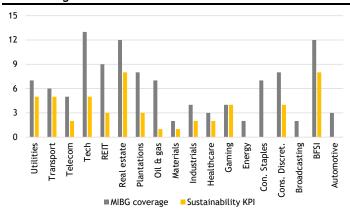
Source: Companies, Maybank IBG Research

Fig 18: Utilities, transport and technology have risk committee overseeing sustainability



Source: Companies, Maybank IBG Research

Fig 20: BFSI, real estate, utilities, transport and technology have management remuneration linked to ESG



Source: Companies, Maybank IBG Research

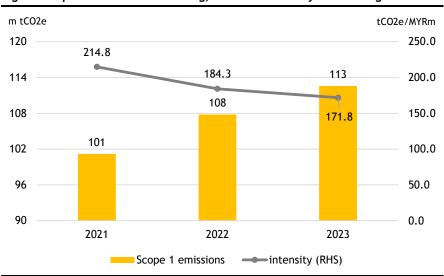
BFSI, real estate, industrials, REITs, telecommunications, gaming, materials and transport had better disclosures and good practices, whereas technology, automotive, plantations, oil & gas, broadcasting, utilities, consumer staples, consumer discretionary, energy and healthcare are laggards.

Carbon emissions rising in absolute terms, but declining based on revenue intensity

Malaysia's CO2 emissions from fossil fuels and industry were 291m tCO2e for 2022, of which coal and oil & gas account for a large share at 276m tCO2e, according to data from Our World. IEA pegged Malaysia's emission from energy at 241m tCO2e for 2022. (for information PETRONAS (unlisted) had Scope 1 emissions of 47.62m tCO2e in 2022 and 24.61m in 1H23)

The Scope 1 emissions of the companies we cover (only 99 disclosed their data) was 107.8m tCO2e in 2022 and increased to 112.6m in 2023. The increase could have been due to increase in coverage of reporting and actual increase in emissions. However, CO2 emissions intensity declined over 2021-2023 per revenue (MYRm). The emissions intensity fell to 171.8 tCO2e/MYRm in 2023 from 214.8 tCO2e/MYRm in 2021.

Fig 21: Scope 1 emissions increasing, however intensity is declining



The 4 largest industry contributors of emissions are utilities at 60%, plantations 12%, transport (including airlines and logistics) 9% and oil & gas 7%, totaling to 88% of all emissions. Of these, utilities and plantations have reported a decline in emissions intensity, whereas transport reported increase over 2021-2023. Data for the oil & gas sector is not comparable as disclosures were insufficient in 2021 but emissions fell in 2023.

Fig 22: Utilities contributes 60% of emissions, followed by plantations at 12% and transport 9%

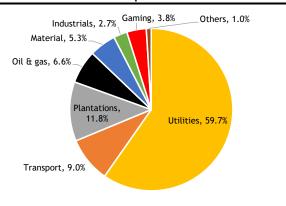
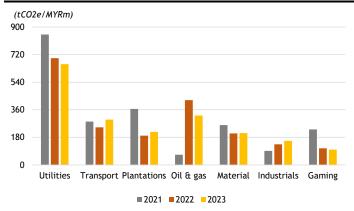


Fig 23: Emissions intensity of utilities, plantation, materials & gaming companies showing a declining trend (tCO2e/MYRm)



Source: Companies, Maybank IBG Research

Source: Companies, Maybank IBG Research

The Scope 2 emissions, ie, emissions from use of grid electricity, is material for most sectors other than energy utilities, plantations and oil & gas. The Scope 2 emissions of the companies we cover (only 100 companies disclosed their data) fell to 10.6m tCO2e in 2023 from 11.6m in 2022. The decline could be due to energy efficiency, shift to renewable energy (RE) and participation in Tenaga Nasional (TNB MK, CP MYR14.38, HOLD, TP MYR14)'s green tariff programme. The Scope 2 emissions intensity also declined over 2021-2023 per revenue (MYRm). The emissions intensity fell to 16 tCO2e/MYRm in 2023 from 21.1 tCO2e/MYRm in 2021.

Industrials, telecommunications, materials and utilities were the largest contributors, accounting for 70% of the total Scope 2 emissions of the companies we cover. Most sectors reported a decline in intensity over 2022-23.

Fig 24: Telecommunications, industrials and materials are the larger contributors to Scope 2 emissions

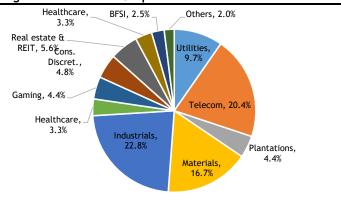
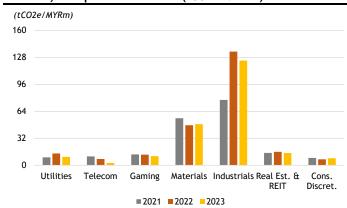


Fig 25: Most sectors' Scope 2 emissions intensity declined over 2021-23, except for industrials (tCO2e/MYRm)



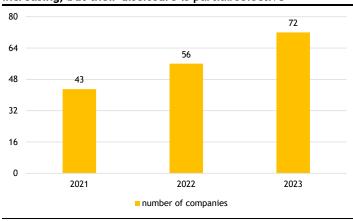
Source: Companies, Maybank IBG Research

Source: Companies, Maybank IBG Research

Scope 3 emissions - selective disclosures

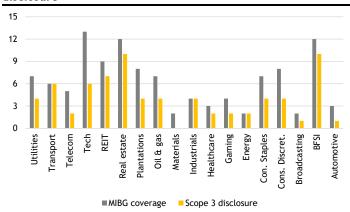
The Scope 3 emissions disclosure, ie, value-chain emissions, is highly selective. 72 companies out of the 114 companies we cover reported scope 3 emissions in 2023. This number was 56 in 2022 and 43 in 2021. Within the 15 categories of Scope 3, very few companies have disclosed data for categories other than 'employee commute' (58 companies) and 'employee business travel' (62 companies). 'Financed emissions' is disclosed by only 2 banks, namely CIMB Group (CIMB MK, CP MYR8.21, BUY, TP MYR9.20) and Alliance Bank (ABMB MK, CP MYR5.02, BUY, TP MYR5.30). Outside our coverage, MAYBANK (MAY MK, Not Rated) also discloses financed emissions.

Fig 26: Number of companies disclosing Scope 3 emissions increasing, but their disclosure is partial/selective



Source: Companies, Maybank IBG Research

Fig 27: Real estate and banks lead in terms of Scope 3 emissions disclosure



Source: Companies, Maybank IBG Research

November 19, 2024

70 62 58 56 42 22 28 16 15 14 14 0 Fuel & enrgy.related Empl. commute **Business travel** Waste generated Purch. goods & serv. **Jownstream Leased** number of companies

Fig 28: Selective scope 3 categories disclosed, mainly 'employee commute' and 'business travel'

Net-zero/carbon-neutral commitments are not ambitious enough

Out of the 114 companies we cover, only 56 companies (48% companies) have announced net-zero target, and 11 companies have announced carbonneutral target. These 67 companies make up 54% of Malaysia's market capitalization. 10 companies have both carbon-neutral and net-zero targets.

Of the 56 companies that have a net-zero target, 41 companies have quantifiable emissions-reduction targets for 2024-2050. Of these, 35 companies have quantifiable Scope 1+2 emissions-reduction targets, 1 company (TNB) has a quantifiable Scope 1 reduction target, and 5 companies have a quantifiable Scope 2 reduction target. These targets are mostly up to 2030-31.

Finally, very few companies have net-zero targets for all emissions scopes. There are 8 companies that are targeting net zero across operations, ie, Scope 1 and 2 as well as value chain, ie, Scope 3, which includes 2 breweries [Carlsberg Brewery (CAB MK, CP MYR20.48, BUY, TP MYR23.10) and Heineken Malaysia (HEIM MK, CP MYR23.70, BUY, TP MYR30.20)], 2 plantation companies [IOI Corporation (IOI MK, CP MYR3.98, HOLD, TP MYR3.94) and SG Guthrie (SDG MK, CP MYR4.90, BUY, TP MYR5.20)], 2 BFSI companies [MNRB Holding (MNRB MK, CP MYR2.24, BUY, TP MYR2.70) and Public Bank (PBK MK, CP MYR4.47, BUY, TP MYR5.40), mainly financed emissions], a utility [YTL Power (YTLP MK, CP MYR3.15, BUY, TP MYR4.70)] and an airport [Malaysia Airports (MAHB MK, not rated)].

125 114 100 75 56 50 35 25 11 10 8 5 0 Scope 1 reduction target reduction target reduction target Carbon neutral companies Net zero carbon neutral scope 1+2 Scope 2 Net zero + Total

Fig 29: No. of Co.s with net-zero/carbon-neutral or emissions-reduction targets

Utilities, real estate, oil & gas and BFSI have a higher share of companies with a net-zero/carbon-neutral target.

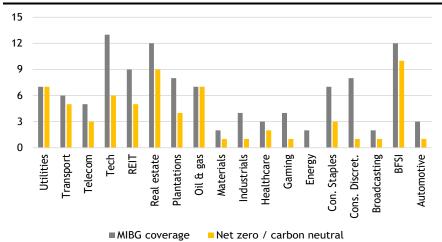


Fig 30: Companies with net-zero/carbon-neutral target in the various sectors

Source: Companies, Maybank IBG Research

There are companies that do not have any net-zero/carbon-neutral target, but still have a carbon-emissions-reduction target. There are 10 companies that have a Scope 1+2 emissions reduction target, and one company has a Scope 2 reduction plan. There are nine companies, which have signed up for Science based target initiative (SBTi) validation of their carbon emissions reduction/net zero/carbon neutral target.

Fig 31: Companies signing up for SBTi

rig 51. Companies signing up	ig 51. Companies signing up for 5511										
Company	Bbg code	CP (MYR)	Rating	TP (MYR)							
Bursa Malaysia	BURSA MK	8.91	HOLD	9.50							
Heineken Malaysia	HEIM MK	23.70	BUY	30.20							
SD Guthrie	SDG MK	4.90	BUY	5.20							
Gamuda	GAM MK	8.75	BUY	9.60							
Sunway	SWB MK	4.72	HOLD	4.37							
CapitaLand Malaysia Trust	CLMT MK	0.67	BUY	0.73							
Axiata Group	AXIATA MK	2.27	BUY	3.20							
CelcomDigi	CDB MK	3.34	BUY	4.50							
Malakoff Corporation	MLK MK	0.84	HOLD	0.80							

Source: Company, SBTi, Maybank IBG Research

November 19, 2024

Fig 32: Companies with no net-zero/carbon-neutral target, but still have an emissions-reductions target

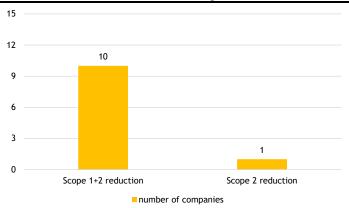
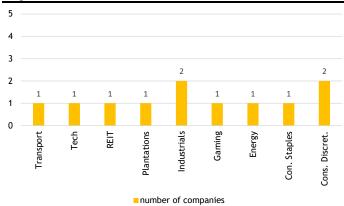


Fig 33: ...the number of companies with emissions-reduction target in the various sectors



Source: Companies, Maybank IBG Research
Source: Companies, Maybank IBG Research

Fig 34: Companies with emissions-reduction plan, but no net-zero/carbon-neutral target

Particulars	Industry	Bbg code	CP (MYR)	Rating	TP (MYR)	Target
MR D.I.Y. Group	Consumer Discretionary	MRDIY MK	1.83	BUY	2.35	Scope 1 + 2
Sime Darby Bhd	Consumer Discretionary	SIME MK	2.22	BUY	3.09	Scope 1 + 2
QL Resources	Consumer Staples	QLG MK	4.76	HOLD	4.70	Scope 1 + 2
Cypark Resources	Energy	CYP MK	0.89	HOLD	0.73	Scope 1 + 2
Genting Bhd	Gaming	GENT MK	3.78	BUY	5.83	Scope 1 + 2
Hartalega	Industrials	HART MK	3.45	BUY	4.31	Scope 1 + 2
Top Glove	Industrials	TOPG MK	1.11	HOLD	1.08	Scope 1 + 2
KLCCP Stapled Group	REITs	KLCCSS MK	8.04	HOLD	8.15	Scope 1 + 2
V.S. Industry	Technology	VSI MK	1.08	BUY	1.28	Scope 1 + 2
Swift Haulage	Transport	SWIFT MK	0.45	HOLD	0.49	Scope 1 + 2

Source: Maybank IBG Research

Renewable energy - less than 50% of companies we cover report RE use Out of the 114 companies we cover, 78 companies (or 68% of the companies) have mentioned they use renewable energy (RE). This includes rooftop solar, sourcing RE using Tenaga Nasional's (TNB MK) green energy tariffs plan, use of biogas (plantation companies) and use of RE certificates.

Of the data available from 49 companies, 10 companies say RE makes up more than 40% of their power usage. Of these 10 companies, 5 are plantation companies (52-96%), two consumer staples companies (45-66%), one each of BFSI, utilities and consumer discretionary. There are 6 other companies which have RE usage of 21-40%, 3 companies with RE usage of 11-20%, 7 companies with RE usage of 5-10%, 14 companies with RE usage of 1-5% and 9 companies with RE usage of 0-1%.

Fig 35: 68% of companies say they use RE, out of which 49 companies share data to calculate usage, and only 19 companies have usage above 10%

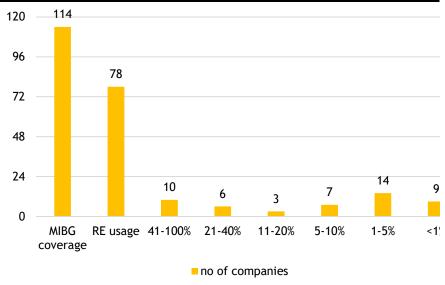


Fig 36: Companies whereby RE makes up more than 10% of their power consumption

Particulars	Industry	Bbg code	CP (MYR)	Rating	TP (MYR)	RE usage
Allianz Malaysia	BFSI	ALLZ MK	20.40	BUY	24.85	100%
Mega First Corporation	Utilities	MFCB MK	4.26	HOLD	4.80	100%
TH Plantations	Plantations	THP MK	0.69	HOLD	0.58	96%
TSH Resources	Plantations	TSH MK	1.19	HOLD	1.15	92%
SD Guthrie	Plantations	SDG MK	4.90	BUY	5.20	88%
Heineken Malaysia	Consumer Staples	HEIM MK	23.70	BUY	30.20	66%
Sarawak Oil Palms	Plantations	SOP MK	3.45	BUY	4.10	63%
AEON Co. (M)	Consumer Discretionary	AEON MK	1.41	BUY	1.86	56%
IOI Corporation	Plantations	IOI MK	3.98	HOLD	3.94	52%
QL Resources	Consumer Staples	QLG MK	4.76	HOLD	4.70	45%
Wasco	Oil & Gas	WSC MK	1.00	BUY	1.67	25%
Tenaga Nasional	Utilities	TNB MK	14.38	HOLD	14.00	24%
Gamuda	Real Estate	GAM MK	8.75	BUY	9.60	22%
Vitrox Corp	Technology	VITRO MK	3.41	SELL	3.40	22%
Padini Holdings	Consumer Discretionary	PAD MK	3.52	BUY	3.80	21%
Pavilion REIT	REITs	PREIT MK	1.49	BUY	1.68	21%
Globetronics Tech.	Technology	GTB MK	0.52	HOLD	1.17	19%
Carlsberg Brewery Malaysia	Consumer Staples	CAB MK	20.48	BUY	23.10	15%
Telekom Malaysia	Telecommunications	T MK	6.36	BUY	7.50	11%

Source: Maybank IBG Research



Social parameters

Workforce diversity and training

Women inclusion in the workforce in ASEAN is on the rise. For 63% of the companies we cover, females make up more than 30% of their workforce. Also, 51% of companies are reporting an increasing number of females in their workforce over 2021-2023 and 36% showing a stable trend over the same period.

Fig 37: 63% of companies where females make up more than 30% of the workforce

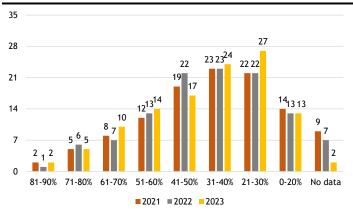
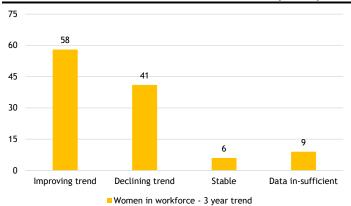


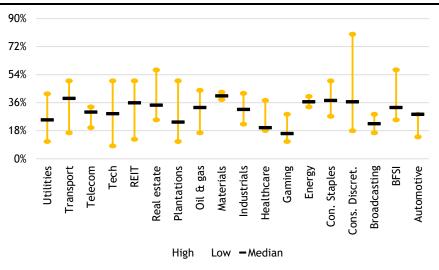
Fig 38:...51%/36% companies reporting an increasing/stable trend of the women share in the workforce over past 3 years



Source: Companies, Maybank IBG Research

Source: Companies, Maybank IBG Research

Fig 39: Women in the workforce: high, low and median level of various sectors



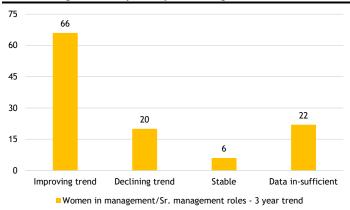
Source: Companies, Maybank IBG Research

Fig 40: % of women in the workforce

Industry	no of cor	Improving	Declining	Stable	No data	Mean	Median -		High		Low
Industry	no of cos.	Improving	Declining	Stable	NO data	mean	median -	%	Company	%	Company
Utilities	7	5	2	0		21.4%	23.0%	29.5%	GMB MK	12.0%	PTG MK
Transport	6	2	2	1	1	26.3%	27.8%	48.0%	AAX MK	5.0%	WPRTS MKs
Telecom	5	2	3	0		40.2%	40.0%	48.0%	CDB MK	31.0%	AXIATA MK
Tech	13	9	3	0	1	42.8%	40.6%	76.5%	ATECH MK	14.0%	GREATEC MK
REIT	9	3	4	1	1	54.0%	44.5%	87.0%	SREIT MK	36.5%	IGBREIT MK
Real estate	12	6	5	1		37.5%	38.5%	57.0%	SWB MK	14.2%	PINT MK
Plantations	8	1	6	0	1	22.7%	21.6%	34.0%	SOP MK	17.6%	SDG MK
Oil & gas	7	5	0	1	1	28.4%	25.3%	47.0%	ICON MK	8.0%	WSC MK
Materials	2	2	0	0		19.7%	19.7%	21.0%	PCHEM MK	18.4%	TTNP MK
Industrials	4	2	2	0		25.0%	25.3%	36.0%	HART MK	13.3%	PMAH MK
Healthcare	2	2	0	0		74.6%	77.0%	78.9%	KPJ MK	77.0%	OPTIMAX MK
Gaming	4	2	1	1		40.1%	38.2%	51.0%	MAG MK	33.0%	GENT MK
Energy	2	1	1	0		28.5%	28.5%	32.3%	SOLAR MK	24.6%	CYP MK
Con. Staples	7	2	3	1	1	35.2%	30.0%	48.7%	DXN MK	25.0%	LHIB MK
Cons. Discret	. 8	3	4	1		52.4%	52.5%	83.0%	INNATURE MK	25.9%	SIME MK
Broadcasting	2	1	1	0		46.5%	46.5%	49.0%	ASTRO MK	44.0%	MPR MK
BFSI	12	9	2	1		60.2%	61.1%	74.0%	RCE MK	47.3%	BURSA MK
Automotive	3	0	3	0		27.2%	25.7%	30.3%	BAUTO MK	25.6%	MBM MK

Fig 41: 65% of companies have more than 30% of females in management/senior management roles...

Fig 42:...also the number of companies where the women share is increasing over the past 3 years is higher

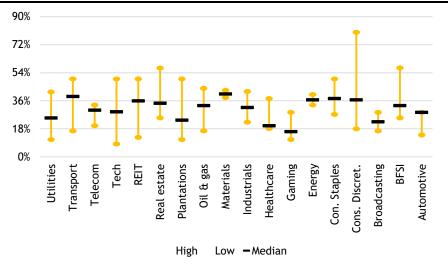


Source: Companies, Maybank IBG Research

Source: Companies, Maybank IBG Research

The average training hours are increasing for 62 companies, whereas 24 companies are reporting a declining trend. For the remaining companies, there is insufficient data to understand the trend.

Fig 43: Average training hours: high, low and median level of various sectors



Source: Companies, Maybank IBG Research



Fig 44: Average training hours for employees

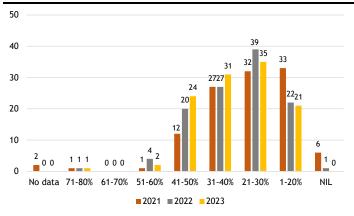
la di catani	of		Da	ata		Mean		High		Low
Industry	no of cos.	available	Improving	Declining	Insufficient	hours	hours	Company	hours	Company
Utilities	7	4	3	1	3	25.9	39.8	GMB MK	11.5	YTLP MK
Transport	6	5	4	1	1	26	51.0	MAHB MK	6.5	SWIFT MK
Telecom	5	5	1	4	0	36.4	97.9	AXIATA MK	4.9	TDC MK
Tech	13	10	7	3	3	19.5	47.0	GREATEC MK	1.2	VSI MK
REIT	9	8	7	1	1	28.7	41.0	KLCCSS MK	12.0	AXRB MK & PREIT MK
Real estate	12	12	11	1	0	30	68.0	ECWI MK	3.4	PINT MK
Plantations	8	2	1	1	6	12	22.0	IOI MK	2.0	SDG MK
Oil & gas	7	6	6	0	1	43.7	109.1	VEB MK	14.0	WSC MK
Materials	2	2	2	0	0	64.7	88.8	PCHEM MK	40.6	TTNP MK
Industrials	4	4	2	2	0	31.2	46.8	PMAH MK	13.1	HART MK
Healthcare	2	1	1	0	2	39.18	39.2	KPJ MK	4.8	OPTIMAX MK
Gaming	4	2	1	1	2	17.7	24.5	GENM MK	11.0	GENT MK
Energy	2	2	1	1	0	13.2	21.4	SOLAR MK	5.0	CYP MK
Con. Staples	7	3	1	1	5	19.6	27.1	DXN MK	10.2	LHIB MK
Cons. Discret.	8	6	4	2	2	22	45.0	MNHB MK	6.0	BFD MK
Broadcasting	2	2	2	0	0	20.7	31.0	MPR MK	10.3	ASTRO MK
BFSI	12	10	7	3	2	58.4	104.0	AMM MK	11.0	MNRB MK
Automotive	3	2	1	1	1	9.2	11.1	BAUTO MK	7.3	TCM MK

Governance parameters

Diversity and independence of board

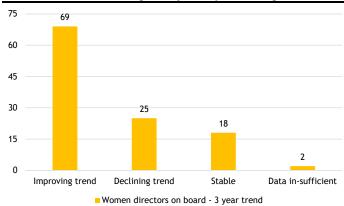
Out of the 114 companies we cover, 51% have more than 30% of females making up their Board, and another 31% have 21-30% women making up their Board. Also, 69 companies have an increasing trend in terms of female directors. There were 6 companies in 2021 that had no female directors, but this has fallen to none in 2023.

Fig 45: 51% of companies whereby female directors make up more than 30% of their board



Source: Companies, Maybank IBG Research

Fig 46:...also the number of companies where the women share of the board is increasing over past 3 years is higher



Source: Companies, Maybank IBG Research

Fig 47: Female directors: high, low and median level in the various sectors

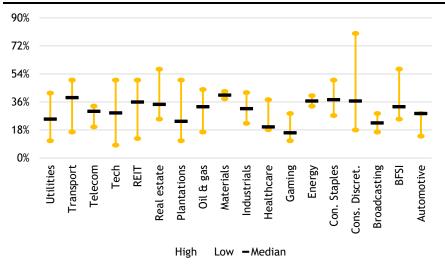


Fig 48: Female directors

Industry	no of cos.	Improving	Declining	Stable	Mean	Median -		High		Low
ilidusti y	no or cos.	illibi ovilig	Deciming	Stable	Mean	Mediaii -	%	Company	%	Company
Utilities	7	4	1	2	27.5%	25.0%	41.7%	TNB MK	11.1%	MLK MK
Transport	6	5	1	0	33.8%	38.8%	50.0%	MISC MK	16.7%	AAX MK & CAPITALA MK
Telecom	5	2	2	1	28.7%	30.0%	33.3%	T MK	20.0%	MAXIS MK
Tech	13	7	4	2	29.1%	29.0%	50.0%	ITMAX MK	8.3%	INRI MK
REIT	9	6	3	0	32.3%	36.0%	50.0%	KLCCSS MK & AXRB MK	12.5%	SENTRAL MK
Real estate	12	7	1	4	35.9%	34.5%	57.0%	GAM MK	25.0%	SCGB MK
Plantations	8	7	1	0	29.3%	23.6%	50.0%	SOP MK	11.1%	TSH MK
Oil & gas	7	4	2	1	31.5%	33.0%	44.0%	VEB MK	16.7%	BAB MK
Materials	2	1	1	0	40.4%	40.4%	42.8%	TTNP MK	38.0%	PCHEM MK
Industrials	4	2	0	2	31.9%	31.7%	42.0%	TOPG MK	22.2%	KRI MK
Healthcare	2	1	0	1	25.2%	20.0%	37.5%	OPTIMAX MK	18.2%	KPJ MK
Gaming	4	3	1	0	18.0%	16.2%	28.6%	MAG MK	11.1%	GENT MK
Energy	2	2	0	0	36.7%	36.7%	40.0%	CYP MK	33.3%	SOLAR MK
Con. Staples	7	3	2	3	36.5%	37.5%	50.0%	NESZ MK	27.3%	LHIB MK
Cons. Discret.	8	4	2	2	39.9%	36.7%	80.0%	INNATURE MK	18.0%	SIME MK
Broadcasting	2	0	2	0	22.6%	22.6%	28.6%	ASTRO MK	16.7%	MPR MK
BFSI	12	10	1	1	36.1%	33.0%	57.1%	HLFG MK	25.0%	RCE MK
Automotive	3	1	1	1	23.7%	28.6%	28.6%	BAUTO MK & MBM MK	14.0%	TCM MK

Source: Companies, Maybank IBG Research

85% of companies under our coverage have independent directors, with tenure of less than 10 years comprising more than 40% of the Board. 47% of companies have independent directors at more than 50% of the Board (a recommendation of the Malaysian Code of Corporate Governance for at least half or majority of the Board to comprise independent directors). 38% of companies are reporting an increasing trend, whereas 29% had a stable share of independent directors over the past 3 years.

Fig 49: 85% of companies have more than 40% of independent directors making up their board

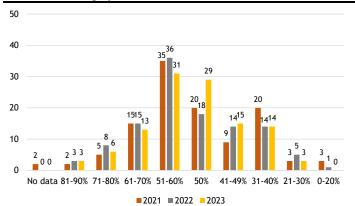
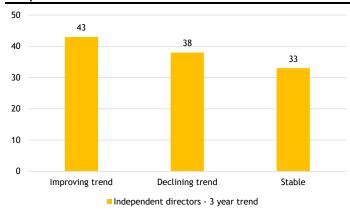


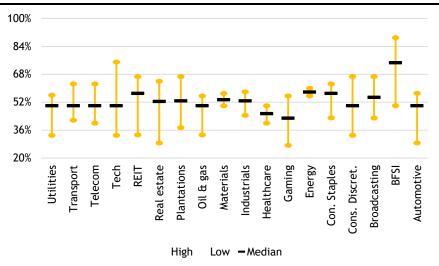
Fig 50:...also the number of companies with improving/stable independent director share at 67%



Source: Companies, Maybank IBG Research

Source: Companies, Maybank IBG Research

Fig 51: Independent directors: high, low and median level among the sectors



Source: Companies, Maybank IBG Research

Fig 52: Independent directors

Industry	no of cos	Improving	Doclining	Stable	Moon	Modian	1	High	Le	ow
Industry	no of cos.	Improving	Declining	Stable	Mean	Median —	%	Company	%	Company
Utilities	7	2	3	2	47.0%	50.0%	56.0%	MLK MK	33.0%	YTLP MK
Transport	6	2	3	1	50.7%	50.0%	62.5%	MISC MK	41.7%	MAHB MK
Telecom	5	2	3	0	51.4%	50.0%	62.5%	CDB MK	40.0%	TDC MK
Tech	13	4	3	6	51.2%	50.0%	75.0%	GREATEC MK	33.0%	INRI MK
REIT	9	6	3	0	51.5%	57.1%	66.7%	CLMT MK	33.3%	AXRB MK
Real estate	12	4	7	1	52.3%	52.5%	64.0%	IJM MK	28.6%	PINT MK
Plantations	8	5	3	0	53.3%	52.8%	66.7%	IOI MK	37.5%	TAH MK
Oil & gas	7	1	4	2	48.8%	50.0%	55.6%	ICON MK & DLG MK	33.3%	WSC MK
Materials	2	0	0	2	53.5%	53.5%	57.0%	TTNP MK	50.0%	PCHEM MK
Industrials	4	1	0	3	52.0%	52.8%	58.0%	TOPG MK	44.4%	KRI MK
Healthcare	2	0	1	1	45.2%	45.5%	50.0%	OPTIMAX MK	45.0%	KPJ MK
Gaming	4	4	0	0	42.1%	42.9%	55.6%	GENT MK	27.3%	GENM MK
Energy	2	2	0	0	57.8%	57.8%	60.0%	CYP MK	55.6%	SOLAR MK
Con. Staples	7	3	0	4	53.0%	57.1%	62.5%	DXN MK	43.0%	HEIM MK & CAB MK
Cons. Discret.	8	3	2	3	48.8%	50.0%	66.7%	MRDIY MK	33.0%	SEM MK
Broadcasting	2	0	2	0	54.8%	54.8%	66.7%	MPR MK	42.9%	ASTRO MK
BFSI	12	3	3	6	71.8%	74.6%	89.0%	BURSA MK	50.0%	RCE MK
Automotive	3	0	2	1	45.2%	50.0%	57.1%	BAUTO MK	28.6%	MBM MK

Source: Companies, Maybank IBG Research



Malaysia ESG Portfolio

Based on the ESG performance, risks and opportunities we have constructed the below ESG portfolio. All the companies in our portfolio have MIBG ESG score of more than 50, low/medium ESG risk rating as per Sustainalytics with average/strong management rating and controversy score of 0-2, which is low-to-medium. All the companies are part of the FTSE4Good Index.

We have made the following changes to our ESG portfolio: including CIMB Group (CIMB MK), Press Metal Aluminum (PMAH MK) and SD Guthrie (SDG MK). We believe all the three companies are managing ESG risks well and we see opportunities emanating from ESG for all the three companies. We exclude RHB Bank (RHBBANK MK, CP MYR6.49, BUY, MYR6.80), Hartalega (HART MK, CP MYR3.45, BUY, MYR4.31) and Vitrox (VITRO MK, CP MYR3.41, SELL, MYR3.40).

Fig 53: MY ESG Portfolio

						Div.		Sustainalytics		MIBG	ln
Company	BBG code	MCAP (MYRm)	Rec	Price (MYR)	TP (MYR)	Yield (%)	Risk rating	Management rating	Controversy score	ESG score	FBM4G Index
Axis REIT	AXRB MK	3,478	BUY	1.73	2.12	4.8	Low	Average	0	59	Yes
Bermaz Auto	BAUTO MK	2,443	BUY	2.09	3.04	11.3	Low	Average	0	57	Yes
CelcomDigi	CDB MK	39,183	BUY	3.34	4.50	3.2	Medium	Average	1	57	Yes
CIMB Group	CIMB MK	88,008	BUY	8.21	9.20	7.4	Low	Strong	2	69	Yes
CTOS Digital	CTOS MK	2,957	BUY	1.28	1.65	2.4	Medium	Average	0	69	Yes
Gamuda	GAM MK	24,690	BUY	8.75	9.60	2.0	Medium	Strong	1	75	Yes
Hong Leong Bank	HLB MK	44,828	BUY	20.68	24.30	3.5	Low	Strong	0	71	Yes
Inari Amertron	INRI MK	11,138	HOLD	2.94	3.30	2.1	Medium	Strong	0	69	Yes
MISC	MISC MK	33,701	HOLD	7.55	8.09	4.9	Low	Strong	2	67	Yes
Press Metal Alu.	PMAH MK	38,644	BUY	4.69	5.70	1.5	Medium	Strong	1	63	Yes
SD Guthrie	SDG MK	33,877	BUY	4.90	5.20	3.4	Medium	Strong	2	61	Yes
Sunway	SWB MK	26,852	HOLD	4.72	4.37	2.7	Negligible	Strong	0	65	Yes
Telekom	T MK	24,408	BUY	6.36	7.50	4.5	Medium	Average	2	65	Yes
Westports	WPRTS MK	15,004	BUY	4.40	5.38	4.7	Negligible	Strong	0	70	Yes
Yinson Holdings	YNS MK	7,589	BUY	2.58	4.78	0.8	Low	Strong	0	71	Yes

Source: Bloomberg, Sustainalytics, Bursa Malaysia, Maybank IBG Research



ASEAN Energy Transition



ASEAN Energy Transition

Risk/Opportunities and Investment Themes: No Carrots And No Sticks!

Energy transition is uneven and more challenging for middle-income countries in ASEAN. Energy transition due to climate change is the biggest theme globally and is likely to create both risks and investment opportunities for the next few decades. However, transition has been uneven around the world, with Europe and the US having an edge due to their high-income economy. High-income economies can spare more budget for capital outlay for transition, to invest more to increase data disclosure/compliance, and for emission-mitigation as well as climate change adaptation measures using carbon tax/allowances. In contrast, emerging and developing economies such as ASEAN are unable to provide any major incentives or use carbon tax/allowances, thereby slowing the pace of transition.

We use the materiality matrix to highlight the key issues businesses and societies in the ASEAN-6 countries (Malaysia, Singapore, Thailand, the Philippines, Indonesia and Vietnam) are facing. ASEAN faces the challenge of decoupling economic development from their nature/biodiversity and climate at a time when their economies are poised to develop rapidly for the next two decades.

Air pollution Per capita energy catastrophes Transition

Deforestation Waste and waste management Per capita emissions

Fossil fuel subsidies

Fig 54: Materiality matrix for ASEAN

Source: Maybank IBG Research

Fig 55: ASEAN: Medium- and low-income countries are more vulnerable to climate risks

Current or Potential Business Impact

Country	Population (m)	GDP per capita (USD)	ND-GAIN Vulnerability Score	Total Emissions (m TCO2e)	Emissions per capita (tCO2e)	Emissions Per GDP (tCO2e/GDP USDm)
Singapore	5.4	60,729	0.38	64	11.3	186
Malaysia	32.8	10,412	0.37	368	11.3	1,091
Thailand	70.0	7,158	0.44	451	6.5	903
Indonesia	276.0	3,870	0.44	1475	5.4	1,394
Vietnam	98.1	3,526	0.47	458	4.7	1,335
Philippines	111.0	3,301	0.46	227	2.1	629

Source: Climatedatawatch.org

In 2022, ASEAN accounted for c.5% of global emissions. Among the ASEAN countries, Thailand, the Philippines, Indonesia and Singapore's emissions rose by 2-7%, whereas Vietnam and Malaysia's emissions fell. ASEAN countries are ranked 5-47 in world emissions, with Indonesia at the top and Singapore at the bottom. On a per-capita basis, Singapore and Malaysia have the highest emissions, primarily due to their higher per-capita income, and greater



consumption and waste generation. When we compare emissions to GDP, Singapore, Malaysia and Thailand score better than Indonesia and Vietnam. The Philippines has very small emissions per capita. In ASEAN, Singapore and Malaysia are the least vulnerable to physical risks, such as floods and typhoons.

Apart from looking at energy transition and energy mix, our report also aims to identify critical macro environmental risks, opportunities and themes across ASEAN.

Risks for ASEAN include:

- Rising energy consumption and emissions overall, and on a per-capital hasis
- 2) It has only a small share of the world's low-carbon energy sources.
- 3) Slow energy transition due to countries' lack of ambition in setting NDCs (nationally determined contributions), explicit carbon tax, pricing and establishing emissions-trading schemes.
- Transition to low-carbon transportation remains well below the world average.
- 5) The cost of capital for investment in renewables is high compared with developed markets.
- 6) Vulnerable to floods and tropical cyclones.

These risks in turn create opportunities, including:

- Investments in renewables, clean-energy systems and battery technology.
 Opportunities to become a preferred supplier in the global supply chain for renewables and low-carbon transportation/battery ecosystem.
- 2) Decarbonization of agriculture and protection of nature/biodiversity by attracting investment into high-quality carbon-offset projects.
- Construct energy-efficient buildings to support high-growth activities such as data centres, and manufacturing of electronics and other products meant for export.
- 4) Electrify industrial activities, energy efficiency and boost waste management/circular economy.
- 5) Build and expand intra-regional power grids in each ASEAN country.

According to a Bain Report published in Apr'24, collectively these opportunities could generate USD300b of revenue pa by 2030 and account for 5% of ASEAN's GDP. Needless to say these themes would play out differently in each ASEAN country because Malaysia, Vietnam and Thailand are more concentrated in manufacturing, whereas Indonesia and the Philippines have a large population and domestic consumption. Singapore remains the financial and trading powerhouse of ASEAN.

We discuss each risk and opportunity in detail:

1. ASEAN's energy consumption and emissions are set to rise. This is because ASEAN has a population of c.700m people, of which more than 65% are under the age of 35. In addition, ASEAN's GDP is set to overtake Japan's, possibly by 2030. As a result, ASEAN's energy needs are likely to increase significantly, not just for their domestic economies but also for export manufacturing as companies shift production and sourcing away from China to ASEAN due to intensifying geopolitical and trade tension between the US and China.

Global total primary energy demand, Continued Momentum, Increasing demand 900 CAGR, 2023-50, % 2.8 ABEAN 600 Middle East 0.6 Rest of world 0.5 Latin America 0.6 900 China 0.3 900 -0.1

Fig 56: Global total primary energy demand (m TJ)

Source: Industry reports

ASEAN needs to invest in renewables to reduce emissions and build energy security. McKinsey, in its Global Energy Perspective Report 2024, estimates global energy demand will increase by 11-18% between 2023 and 2050. One of the primary drivers of this increase will be the ASEAN countries due to high economic growth rates and as its per-capita energy consumption rises from levels that are currently 25% below the global average.

In 2023, ASEAN's emissions increased by 13% or 400m tCO2e, but renewable energy investment increased by only 9%. Renewable energy constitutes less than 10% of electricity generation in ASEAN and green investments in these countries have touched USD6.3b versus a mammoth requirement of USD1.5t by 2030. For a Paris agreement aligned CO2 emissions reduction trajectory, ASEAN needs at least USD150b pa by 2030.

The World Economic Forum believes that "the energy trilemma is the core of ASEAN's energy transition conundrum". The "energy trilemma" refers to ensuring energy security, affordability and sustainability while the countries ramp up their industrial and economic development. This is also referred to in the UN SDG 2024 report wherein out of the 17 indicators, ASEAN is lagging in 'clean energy'.

2. ASEAN's low ranking in the World Trilemma Index is due to its high dependence on fossil energy and large investments in the old energy infrastructure. The World Trilemma Index covers energy security, equity and environmental sustainability of countries. Barring Singapore and Malaysia, ASEAN countries are lagging in this indicator.

Fig 57: ASEAN ranking in the World Trilemma Index

Index Rank	Country Name	Energy Trilemma Score	Energy Security Score	Energy Equity Score	Environmental Sustainability
31	Singapore	70.1	38.9	98.4	68.4
35	Malaysia	69	66.5	79.3	63.1
56	Vietnam	61.9	61.9	70.5	57.7
58	Indonesia	60.5	66.4	57	60.6
60	Thailand	60.1	55.9	71.9	55.2
72	Philippines	56.9	59.3	49.4	64.4

Source: World Trilemma Index, Ranked out of 133 countries. Refer annexure 4 for details



Energy Security

Decarbonization pathways slowed due to fears of energy shortages, creating a dependence on energy that has manifested in Malaysia and Indonesia increasing extraction of fossil fuels such as LNG and coal in the short term. These countries also lack infrastructure in their power grids. Within the ASEAN countries, recently in June 2024, the Philippines streamlined the renewable energy development process, which will help boost investments in the sector and hasten the adoption of renewable energy.

ASEAN countries are extremely prone to climate-related natural disasters like rising sea levels, floods, earthquakes, and typhoons. These increasingly pose threats to energy security and rapid infrastructure rollout is needed to manage these risks.

Energy Equity

The Philippines and Vietnam have made significant strides towards universal electrification. The main driver of energy equity is subsidies. In countries such as Indonesia, Malaysia and Singapore, politically it is difficult to remove energy subsidies. Nevertheless, Malaysia is moving in the positive direction by liberalizing domestic gas prices and linking them to a market reference price, which is in turn linked to global crude oil prices. The liquid-fuel subsidies in Malaysia were rationalized this year as well. Local demandmanagement programmes could play a significant role too, such as Singapore's residential-demand-response programme, and the Philippine's Energy Efficiency and Conservation Act.

Environmental Sustainability

At the COP28 climate conference, Singapore pledged to triple its RE capacity by 2030, remaining set in reaching net zero by 2050. Similarly, Indonesia reasserted its 2060 net-zero target, despite a substantial 60% share of the country's power generation is still reliant on coal and may cost a whopping USD1.2t to phase out by 2050. Malaysia has pledged to increase the share of RE in its power generation capacity to 70% by 2050 from 50% earlier.

In this category, electric vehicles (EVs) are also important. Singapore plans to phase out ICE (internal combustion engine) vehicles by 2030, reflecting the general move towards EVs in Southeast Asia. Thailand has been promoting EV adoption through infrastructure, tax breaks and incentive policies, as it aims to angle itself as a regional manufacturer of EVs. Malaysia and Indonesia are offering incentives to foreign EV makers to consider building new factories in the country, including battery plants.

With much of ASEAN depending on gas, high gas prices have improved hydrogen's importance. Investments in hydrogen however is still negligible.

The Philippines is developing a hydrogen strategy and exploring hydrogen partnerships for cleaner energy in hard-to-abate industries like chemicals and steel.

The major challenge for ASEAN is moving away from the reliance on coal and start building on renewables/battery storage. The 'hard-to-abate' sectors and general manufacturing industries in ASEAN are not yet ready for wide spread electrification and utility scale renewable power plants (capacity of more than 1MW). In the interim, imported LNG is powering many of the ASEAN economies and that may not augur well for their long-term energy security.

Others 4.500 ■ Geothermal 4,000 Hydropower 3.500 3,000 2,500 2,000 1,500 Hydrogen/Ammonia 1,000 Gas with CCS Gas O Oil 쿒 Coal with CCS Coal

Fig 58: Power generation mix by scenario for 1990-2050

Source: ADB Report on Transforming ASEAN 2024, APS=Announced pledges scenario, LCET=Low carbon energy transition

ADB's scenario, as illustrated in the chart above, suggests that ASEAN would still be 50% powered by coal and gas (with carbon capture) even in 2050 under the most optimistic scenario. This means substantial investments are needed in carbon capture and storage, which is not technologically proven and scalable as yet. Massive investments are required in solar, wind, hydropower, geothermal, other low-carbon sources and power transmission and distribution.

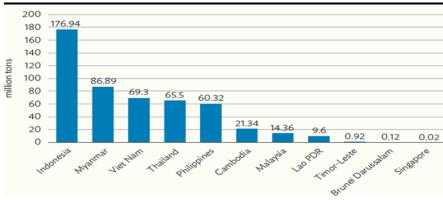


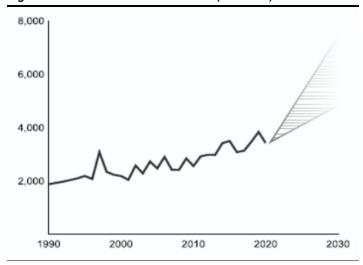
Fig 59: Total GHG emissions from agriculture, 2019

Source: ADB Report on Transforming ASEAN 2024

Agriculture account for 10-26% of emissions in ASEAN countries, even though agriculture makes up just 10-15% of its GDP. These emissions are high in Malaysia, Vietnam, Thailand and the Philippines. Food crops, especially rice cultivation, are big and so are the plantations, including palm and rubber etc. The farms mainly use fossil fuel and fossil fuel-based inputs for their operations. This is where a lot of stubborn supply chain-related emissions originate that are difficult to reduce owing to the issue of just transition, ie, ensuring that the substantial benefits of a green economy transition are shared widely, while also supporting those who stand to lose economically.

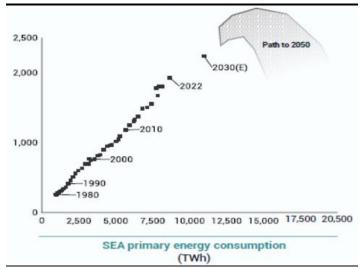
 ASEAN's GDP is poised to rise at rates above global GDP till 2050, and it needs to secure incremental energy through low-carbon sources to remain competitive...

Fig 60: ASEAN annual GHG emissions (m tCO2e)



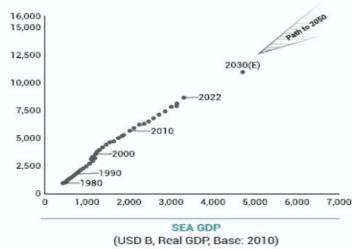
Source: Bain Report on ASEAN Green Economy 2024

Fig 62: ASEAN CO2 emissions (m tCO2e)



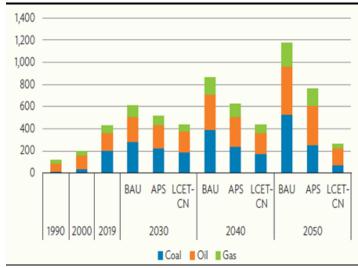
Source: Bain Report on ASEAN Green Economy 2024

Fig 61: ASEAN primary energy consumption (TWh)



Source: Bain Report on ASEAN Green Economy 2024

Fig 63: CO2 emissions by scenario over 1990-2050 (m tCO2e)



Source: ADB

Under a business-as-usual (BAU) scenario, in this decade ASEAN's energy consumption and emissions will rise due to higher-than-average GDP growth vs the world. However, ASEAN is fast-becoming a global sourcing hub for the US and the EU as they decouple from China and that would mean imposition of carbon tax through import tax on ASEAN products starting in the next 2-3 years. To maintain economic growth, ASEAN needs to reduce emission intensity by changing the source of energy to low carbon from high carbon. This would primarily happen through electrification and adoption of RE sources as well as EVs.

Fig 64: ...however, ASEAN's climate-change-mitigation ambition and action is weak

Country	NDC Ta Unconditional	3	Sectors	Types of Mitigation Action/Measures
Indonesia	20%	43.2%	Energy, Industrial process and product use, Agriculture, Forestry and other land use, Waste	1,2,4,5, 6,7
Malaysia	45%	NA	Energy, IPPU, Waste, Agriculture, Land Use Change and Forestry	NA
Philippines	2.71%	72.29%	Agriculture, Waste, Industry, Transport, Energy	8
Singapore	60m tCO2e	NA	Energy, IPPU, Agriculture, Land Use Change, Waste	3
Thailand	30%	40%	Economy-wide (excluding Land use change)	1,5,6,7,9
Vietnam	15.8%	43.5%	Energy, Waste, Agriculture Land use change, Industrial processes	9

Note: 1 = Renewable energy production, 2=Industrial emission reduction, 3=Domestic emissions reduction, 4= Nature based solution 5=Waste management, 6= Sustainable transportation, 7=Smart grids and power management, 8=Uptake of circular economy, 9= Others eg raising awareness, monitoring, green tourism).

New ISSB reporting standards to improve data disclosure and corporate actions in Asia. The CDP Asia Pacific Report 2024 states that currently only 15% of companies disclose their scope-3 emissions (mainly supply chain) and these emissions could be 26x higher, based on studies by BCG and CDP, and hence reporting on supply chain emissions is becoming highly critical. Scope 3 reporting will intensify in the future due to regulatory changes in many countries over the next 2-3 years that will mandate adoption of the International Sustainability Standards Board (ISSB) and European Union's Corporate Sustainability Reporting Directive (CSRD). In ASEAN, Malaysia, Singapore and the Philippines already confirmed adoption of ISSB starting 2025.

According to the CDP Asia Pacific Report 2024, climate change, water and nature-related disclosures by companies in Southeast Asia are on the rise. However, the top-disclosing industries differ in each country, as illustrated below:

- Indonesia: Textile and fabric goods, chemicals and plastic product manufacturing.
- Malaysia: electrical and electronic equipment, metal products manufacturing, plastic product manufacturing.
- Singapore: electrical and electronic product manufacturing, metal products manufacturing, trading/distribution, wholesale, rental and leasing.
- Thailand: plastic product manufacturing, electrical and electronic equipment, chemicals.
- Vietnam: textile and fabric goods, electrical and electronic equipment, plastic product manufacturing.

This list of industries disclosing in the CDP suggests that the hard-to-abate sectors, such as oil & gas, transportation, aviation, shipping, chemicals, cement, metals and mining are not yet geared up to achieve net zero by 2050 or earlier and aligned to the 1.5-2C temperature increase pathway. This will be a major bottleneck for ASEAN in reducing its emission intensity while growing its economy in the coming decades.

Fig 65: ASEAN corporate sectors with SBTi-approved targets and commitments

Country	No of companies with SBTi targets	Key sectors covered
Vietnam	52	Textiles, Apparel, Footwear, Container, Packaging, Consumer Durables, Real Estate, Pharmaceuticals, Healthcare, Construction and Engineering
Thailand	79	Food and Beverage processing, Retailing, Chemicals, Hotels and Restaurants, Textile, Apparel and Footwear, Building products, Banks and Diverse Financials, Telecom, Electric utilities, Real Estate, Containers and Packaging, Ground Transportation, Construction materials, Automobiles, Software, Consumer durables
Singapore	112	Air freight, Hotels and Restaurants, Software, Real Estate, Electrical equipment, Water utilities, Telecom, Financial Services, Textile, Apparel and Footwear, Technology Hardware, Retailing, Mining, Food Production-Agriculture, Chemicals, Construction and Engineering, Containers and Packaging, Food and staples retailing
Philippines	20	Real Estate, Telecom, Mining, Food and Beverage, Containers and Packaging
Malaysia	66	Telecom, Financial Services, Electric utilities, Construction and Engineering, Food and Staples retailing, Real Estate, Textiles, Apparel, Footwear, Ground Transportation, Technology Hardware, Software, Food production-Agriculture, Automobiles and components, Healthcare, Containers and Packaging
Indonesia	59	Telecom, Forest and Paper, Textiles, Apparel, Footwear, Food production-Agriculture, Chemicals, Construction materials, Real Estate, Containers and Packaging, Software, Hotels and Restaurants

Source: SBTi

According to Science Based Target Initiative (SBTi), the gold standard of the corporate net-zero programme, about 430 ASEAN-6 companies have set targets/commitments. This is less than 5% of the total companies globally which made commitments to the SBTi. Singapore, Thailand and Malaysia lead in ASEAN in setting up targets, whereas the Philippines is the laggard.

4. To achieve its 2030 emission-reduction targets, ASEAN needs to accelerate renewables share in its energy mix. ASEAN is committed to reduce emissions by 32% by 2030. On a business as usual (BAU) basis, ASEAN emissions are estimated to rise to 7.3Gt by 2030. As per the Nationally Determined Contributions (NDCs) submitted by the ASEAN countries, CO2 emissions need to decline to 4.9Gt using country resources (unconditional scenario) and decline to 3.9Gt with international support (conditional scenario) by 2030. In terms of sectors, energy (50%), nature (22%) and agriculture (14%) contribute the bulk of emissions in ASEAN. The other key sectors that contribute emissions include industrial processes and waste. Essentially, for emissions to peak this decade, ASEAN needs to lower fossil-fuel subsidies, reduce exposure to coal and transition rapidly to increase the share of RE in its energy mix.

Fig 66: solar + wind made up 4.4% of electricity generation in ASEAN in 2023

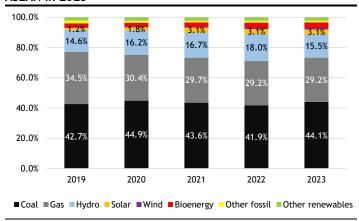
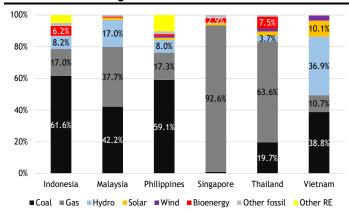


Fig 67:...varies from 0.2-13.2% in ASEAN, the least in Indonesia and the highest in Vietnam



Source: Ember Source: Ember

ASEAN is on the verge of becoming a net-energy importer by 2025. According to IRENA's 2024 report on Geopolitics of Energy Transition, 112-116 countries are net importers of coal, gas and oil, and 86% of the world population is net importer of energy. ASEAN is already a net importer of oil and is expected to become a net importer of natural gas by 2025. Several new LNG plants will open in the ASEAN region and gas-based infrastructure projects are being planned in Thailand, Indonesia, Vietnam and the Philippines. This reduces the energy security of ASEAN and the recent geopolitical events indicate that only increased adoption of renewables will enable long-term energy security to the region.

Clean energy prowess would strengthen China against ASEAN in the world trade. China's CO2 emissions are expected to peak during this decade and it is transitioning to a clean-energy system faster than any other country in the world. In future, manufacturing powered by clean energy would enable China to corner a large share of manufacturing exports as other emerging and developing markets, including ASEAN, are not making such substantial investments to scale their clean-energy system.

5. Deforestation in ASEAN is being reduced due to effective policies

Decline in deforestation in ASEAN is a big positive, especially for Indonesia and Malaysia, as a significant number of the population is engaged in the plantations business. Several companies are receiving Roundtable on Sustainable Palm Oil (RSPO) certifications to establish traceability of their products and they have not committed any deforestation. These companies are confident of meeting the EU law coming into force from Dec 2024 that

would restrict imports of palm oil from the region if it is found to have committed an act of deforestation in its supply chain. This is also driving up decarbonization of palm oil manufacturing by using the waste for generating energy and value-addition.

(Amount of tree cover loss compared to 2018¹)

50%

Philippines
Brunei
Laos PDR
Myanmar
Cambodia
Thailand
Victnam
Victnam
Indonesia
Singapore

Fig 68: Amount of forest cover loss across ASEAN countries

Source: ADB Report on Transforming ASEAN 2024

6. Barring Singapore, ASEAN lacks formal carbon pricing/carbon tax. Singapore was the first and only country in ASEAN to impose a carbon tax in 2019 at SGD5/tCo2e. It has since been increased to SGD25/tCo2e for 2024 and 2025, and will rise to SGD45/tCo2e in 2026/2027 and to SGD80/tCo2e in 2030. Malaysia's National Budget 2025 meanwhile flagged on carbon tax implementation in the iron & steel and energy industries by 2026; the details are pending.

According to Mckinsey's Global Energy Perspectives Report 2024, the global carbon price is too low to trigger faster decarbonize and force countries and companies to restrict temperature increase at 1.5°C by 2100. Also, there are major assumptions with regard to success of carbon capture and storage for coal/gas and hydrogen etc which are not yet at a commercial scale and at a reasonable cost for large scale deployment. This would imply that the carbon price required to restrict temperature increase to 1.5°C ranges from USD150-225 per tonne of CO2 emissions. This, when applied in the context of ASEAN, underscores the importance of building a large clean energy system, move away from fossil fuel and stop possible erosion in value due to stranded asset risk, and avoid potential carbon liabilities (oil & gas, coal-fired power plants, and industries operating on subsidized fossil fuel).

7. ASEAN is one of the most prone to natural disasters globally

The risk of natural disasters are underscored by the top five takeaways from a climate-change survey in Aug 24 conducted by Singapore's ISEAS Institute:

- Floods, heatwaves and landslides triggered by heavy rain are the three most serious climate-change impacts in the ASEAN region.
- 60% of the respondents have stated that their lives will be greatly changed by climate change in the next 10 years.
- 70% of the respondents feel that they experience food insecurity
 a) sometimes, b) frequently or c) all of the time.
- More than 70% respondents support a carbon tax, but only 7% are willing to pay for it.
- Rising energy prices and cost of living is the biggest concern regarding energy transition in the region.

We explain below the vulnerability and climate adaptiveness of ASEAN countries with 3 specific studies:

 The University of Notre Dame compiled the ND-GAIN index score for 182 countries in 2022. The ND-GAIN index score is composed of a vulnerability



score and a readiness score. Readiness measures a country's ability to leverage investments and convert them to adaptation actions. The ND-GAIN index measures overall readiness by considering 3 components: 1) economic readiness; 2) governance readiness; and 3) social readiness.

Fig 69: Most ASEAN countries are vulnerable to floods/cyclones and have low adaptive capability, resulting in potential economic risks

Country	Per Capita Emissions (tons of CO ₂) 2021	Total Emissions (millions of tons of CO ₂) 2021	Vulnerability and Climate Adaptiveness 2022 Notre Dame Gain Index Rank (of 182 countries)
Brunei Darussalam	23.5	10.5	37
Cambodia	1.1	19.0	149
Indonesia	2.3	619.3	100
Lao PDR	2.8	20.8	137
Malaysia	7.6	256.0	49
Myanmar	0.7	36.3	156
Philippines	1.3	144.3	113
Singapore	5.5	32.5	6
Thailand	3.9	278.5	68
Viet Nam	3.3	326.0	97
World average	4.7	-	91

ASEAN = Association of Southeast Asian Nations, Lao PDR = Lao People's Democratic Republic.

Source: Our World of data

b) Selected indicators from the INFORM 2019 index suggests ASEAN faces risks of natural catastrophes. A higher score represents greater risk, and conversely the most-at-risk country is ranked 1st. Global average scores are shown in brackets.

Fig 70: ASEAN countries risk of natural catastrophes

Country	Flood (0-10)	Tropical Cyclone (0-10)	Drought (0-10)	Vulnerability (0-10)	Lack of Coping Capacity (0-10)	Overall INFORM Risk Level (0-10)	Rank (1-191)
Malaysia	6.6(4.5)	2.9(1.7)	3.3(3.2)	3(3.6)	3.2(4.5)	3.2(3.8)	111
Indonesia	8.1(4.5)	6.1(1.7)	3.4(3.2)	3.2(3.6)	4.5(4.5)	4.7(3.8)	59
Thailand	8.8(4.5)	4.9(1.7)	5.7(3.2)	3.1(3.6)	3.9(4.5)	4.1(3.8)	81
Vietnam	10(4.5)	7.9(1.7)	3.5(3.2)	2.4(3.6)	4.2(4.5)	3.8(3.8)	91
Philippines	7.2(4.5)	9.5(1.7)	4.1(3.2)	4.7(3.6)	4.1(4.5)	5.3(3.8)	38

Source: INFORM 2019

As can be seen from the table above, the Philippines, Indonesia and Thailand rank below the average world rank, and are at relatively high risk of natural disasters.

c) The Swiss RE Institute published a report in Feb 24 detailing 'hazard intensification and economic losses.' Its analysis of four major weather perils on 36 countries and their property related losses includes the Philippines, Thailand and Indonesia among the worst affected. These 36 countries account for 60% of the world's GDP. The weather-related insurance resilience index of these countries (refer Fig 72), is less than 10% vs 50-80% in the EU and the US.

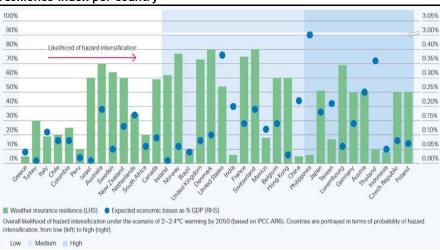
Fig 71: Ranking of companies for the 4 major weather perils and the associated economic loss

Countries	All weather perils		Floods		Severe convective storms		Winter storms		Tropical cyclones	
	Rank	Eco loss as	Rank	Eco loss as	Rank	Eco loss as	Rank	Eco loss as	Rank	Eco loss as
		% of GDP		% of GDP		% of GDP		% of GDP		% of GDP
Philippines	1	3.0	1	0.65	0	0	0	0	1	2.34
Thailand	3	0.36	2	0.36	0	0	0	0	0	0
Indonesia	28	0.05	21	0.05	0	0	0	0	0	0

Source: Swiss RE Institute

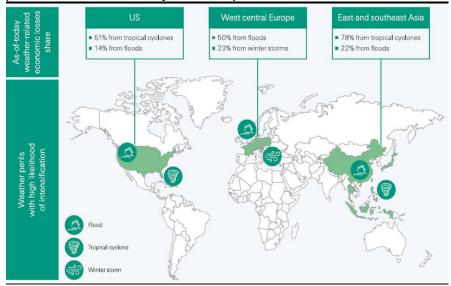
The Philippines suffers the largest economic losses as a percentage of GDP from the major weather perils, such as flooding and tropical cyclones. The losses in the Philippines are around 8x the losses experienced in the US, which as of today ranks second in terms of percentage of GDP economic losses from the 4 weather perils. According to the IPCC, the impact of still-rising greenhouse gas (GHG) emissions on physical climate conditions will increase, and hence so too will the contribution of climate change to making weather events more intense. Longer term, the compounding effects of GHG emissions are expected to make hazard events much more intense.

Fig 72: Probability of hazard intensification and weather-related insurance resilience index per country



Source: IPCC, Swiss RE Institute

Fig 73: Regions with highest probability of hazard intensification and major probabilistic losses from major weather perils



Source: IPCC, Swiss RE Institute

While flood risk is projected to intensify in most locations globally, tropical cyclones are currently the main cause of major weather-related economic losses. Southeast Asia suffers substantial losses from tropical cyclones, including those resulting from coastal flooding due to tropical cyclone-related storm surges. Globally, the IPCC expects tropical cyclones to become more extreme in terms of intensity (category 3-5) and peak wind speeds. This will exacerbate flood risk in coastal areas, and the Philippines and Thailand are particularly vulnerable in this regard.

Countries with similar exposure to intensification of weather hazards differ in terms of financial preparedness to absorb losses resulting from weather-event shocks. Many countries still lack protection against the cost of damage to businesses and property. The absence of robust disaster-protection infrastructure/measures and well-established insurance markets has the biggest impact on businesses and homeowners needing to manage the financial fallout from natural catastrophes. As per Swiss RE, unplanned development in developing countries creates higher levels of risk of disasters. The extreme flooding in Thailand in 2011 is a case in point, as a particular river basin there had a very high concentration of homes and manufacturing industry. The flooding reduced Thailand's GDP by 12.6%. As per Swiss RE, the growth rate of built-up surfaces in Thailand over the past 20 years is 43% with more than half of the area exposed to inland flooding. The remediation measures in Thailand from such disasters are still not full proof after more than a decade.

ASEAN wants to pursue carbon neutrality to manage the risk to its economy arising from natural catastrophes. One estimate suggests that 11% of ASEAN's GDP could be lost by 2100 and 87m people would be living in flood-prone areas unless corrective measures are taken. On the other hand, BCG estimates pursuit of carbon neutrality could add USD3-5.3t in ASEAN GDP by 2050, attract USD3.7-6.7t of investments and create 49-66m new jobs.

Plastic waste in the ocean is a big issue in ASEAN: Countries such as Malaysia, Vietnam, Indonesia and Thailand are major importers of plastic waste from advanced economies. They are also among the worst-performing countries when it comes to riverine plastic emissions. Given the doubling of plastic production between 2000 and 2019, and the projected further increase of 70% until 2040 as per OECD, more oversight and regulations on waste disposal will be necessary. Programmes such as the UN Plastics Treaty (which is currently being discussed) or the EU Packaging and Packaging Waste Regulation are important to reduce plastic usage and improve the environmental soundness of global supply chains.

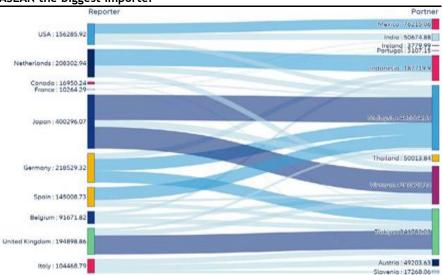
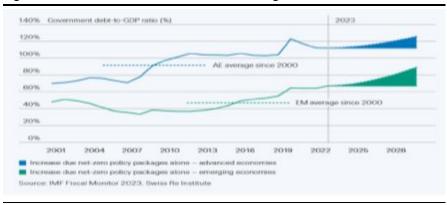


Fig 74: Net plastic waste exports of the top 10 exporters in 2023 by destination, ASEAN the biggest importer

Source: Statista

Climate-change mitigation is a good for the globe, but there are limits as to the extent that the gap can be government financed. Currently about 60% of all low-income countries are either in debt distress or at high risk thereof, exacerbated by higher borrowing costs due to rising interest rates in the advanced economies. Net-zero policy packages aside, the IMF forecasts emerging market government debt-to-GDP ratios are already set to be about 25ppt higher on average between 2023 and 2028 (at 71%) than the long-term average of 46%.

Fig 75: Government debt-to-GDP ratio ballooning



Source: IMF, IPCC, Swiss RE Institute

8. ASEAN consists of middle- and low-income countries, making transition difficult and expensive

We believe the low-income and lower middle-income countries would find it difficult to manage the additional investment for climate-change mitigation and adaptation. In the case of the ASEAN-6, Thailand and Malaysia are upper middle-income countries, whereas Indonesia, the Philippines and Vietnam are lower middle-income countries. Singapore is an exception as it's an high-income country. As can be seen from the table below, the lower and upper middle-income countries account for 75% of the world's population, 38% of world GDP, 62% of the extreme poor population of the world and c.65% of the world emissions. Only the high-income countries of the world have been able to invest in energy transition and reduce their share of emission to well below their share of global GDP.

Fig 76: World Bank country classifications and selected global indicators 2022

Income Classification	Share of global population (%)	Share of global GDP (%)	Share of people in extreme poverty globally (%)	Share of global CO2 emissions (%)
Low-income	8.9	0.6	36.5	0.5
Lower-middle income	40.3	8.3	55.4	15.7
Upper middle income	35.1	30.3	7.1	48.6
High-income	15.7	60.8	1.0	35.2

Source: World Development Report 2024

According to the World Development Report 2024, GHG emissions intensity as a share of GDP is 3.5x higher in a middle-income country than in a high-income country. The energy intensity as a share of GDP is 2.5x more in a middle-income country, while solar and wind electricity generation is 40-42% lower in the overall energy mix compared to high-income countries. The deployment of EVs per 1m population in middle-income countries is 53% lower than in high-income countries.

Between 1990 and 2021, 34 economies reached high-income status. However, today while transitioning from middle-income to high-income these countries would require to consume and produce using low carbon emissions intensive methods. This was not the case in the 1990s. Hence, in order to achieve high-



income status, middle-income economies will need to draw up a growth path that embraces major and rapid energy transition.

9. Cost of capital for sustainable transition high in ASEAN, and investment gap is wide

According to the Swiss RE Institute Report of Feb 2024, private sector capital is a key part of the financing solution for the estimated USD270t of investment needed to meet net-zero ambitions by 2050. According to the IEA, to reach net-zero emissions, annual global investment in clean energy alone needs to reach USD4.2t by 2030 (from USD1.7t in 2023; or from 2% of global GDP pa to 4% by 2030). In 2022, the overall size of global bond markets (publicly traded) totaled more than USD120t, of which less than 5% were sustainable bonds. Of new global debt issuance, only 5% is ESG-labelled and mainly more climate mitigation. The financing going into climate adaptation is even less and only 2% of that comes from private capital. The success of the transition will largely depend on the ability of the corporate sector and government to attract private capital.

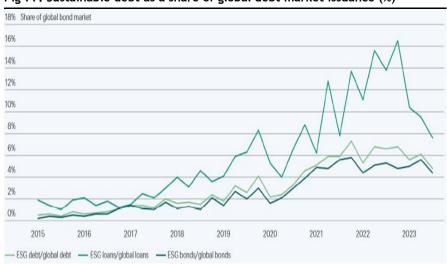
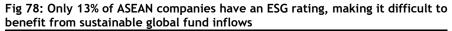
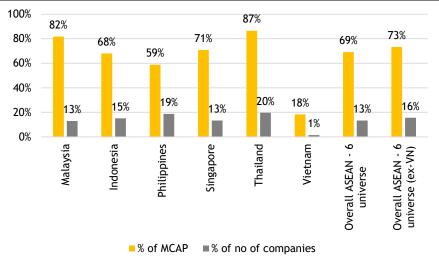


Fig 77: Sustainable debt as a share of global debt market issuance (%)

Source: Institute for International Finance, Swiss RE Institute





 $Source: \ Sustainalytics, \ ASEAN\ Exchanges, \ Maybank\ IBG\ Research$

Fig 79: Low/medium ESG-rated ASEAN companies outperform benchmark

					MCAP	weighted re	eturn			
			MSCI		ann	ualised retu	rns	Out/u	nderperforn	nance
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
Sustainalytics ESG ris	sk score negli	gible/low/m	edium							
All companies	412	-1.4%	1.9%	-0.6%	7.6%	8.9%	14.9%	8.9%	7.0%	15.5%
Malaysia	98	-0.3%	3.0%	12.7%	6.2%	8.4%	20.5%	6.5%	5.4%	7.9%
Indonesia	85	0.1%	7.9%	-8.9%	13.1%	19.5%	43.9%	13.0%	11.5%	52.8%
Philippines	33	-4.4%	-0.1%	-1.9%	1.8%	3.8%	2.8%	6.2%	3.9%	4.7%
Singapore	68	1.0%	0.1%	7.0%	6.7%	8.3%	10.3%	5.7%	8.2%	3.4%
Thailand	122	-6.3%	-2.5%	-15.1%	6.0%	1.0%	-12.3%	12.2%	3.4%	2.8%
Vietnam	6	-4.7%	-14.6%	-13.8%	9.5%	1.9%	11.9%	14.2%	16.5%	25.7%
Sustainalytics ESG ris	sk score negli	gible/low/m	edium + cor	ntroversy (n	o or 1) + m	gmt (mediur	n or strong)		
All companies	283	-1.4%	1.9%	-0.6%	7.8%	6.9%	17.4%	9.1%	5.1%	17.9%
Malaysia	71	-0.3%	3.0%	12.7%	5.2%	5.7%	15.6%	5.4%	2.6%	2.9%
Indonesia	60	0.1%	7.9%	-8.9%	14.5%	20.2%	66.0%	14.4%	12.3%	74.9%
Philippines	20	-4.4%	-0.1%	-1.9%	-2.2%	-2.1%	-6.5%	2.3%	-2.0%	-4.6%
Singapore	44	1.0%	0.1%	7.0%	2.4%	-1.6%	-3.3%	1.3%	-1.6%	-10.2%
Thailand	87	-6.3%	-2.5%	-15.1%	9.3%	2.0%	-12.0%	15.5%	4.5%	3.1%
Vietnam	1	-4.7%	-14.6%	-13.8%	-4.5%	-4.6%	-9.1%	0.2%	10.1%	4.7%

Source: Sustainalytics, MIBG Research, Bloomberg, the above covers a period up to 31 July 2024

Fig 80: Asia Ex-Japan's sustainable flow has huge headroom as data improves

	•								_	
			Flow (I	nzn p)			As	sets	F	unds
Region	1Q23	2Q23	3Q23	4Q23	1Q24	2Q24	(USD b)	% of total	number	% of total
Europe	32.3	20.0	15.3	3.3	8.4	11.8	2,605	84%	5,609	73%
United States	-5.2	-0.6	-2.7	-5.1	-9.0	-4.7	336	11%	613	8%
Asia ex-Japan	1.7	1.9	2.0	0.1	-0.7	0.7	62	2%	612	8%
ANZ	0.1	-1.7	0.0	0.6	0.0	-0.8	30	1%	271	4%
Japan	-1.0	-1.9	-0.9	-1.2	-1.7	-1.3	23	1%	231	3%
Canada	1.0	0.2	-0.1	-0.2	0.1	-1.4	36	1%	323	4%
Total	29.0	18.0	13.7	-2.5	-2.9	4.3	3,091	100%	7,659	100%

 $Source: Morningstar\ Global\ Sustainable\ Fund\ Flow\ Quarterly\ Review$

Fig 81: Asia Ex-Japan fund flow for Thailand impressive in 2023 and 2024

Region/Country	1Q23	2Q23	3Q23	4Q23	1Q24	2Q24
China	Inflow	Inflow	Outflow	Outflow	Outflow	Outflow
ex-China	Outflow	Inflow	Inflow	Inflow	Inflow	Inflow
South Korea	Outflow	Inflow	Inflow	NA	NA	Outflow
Hong Kong	Outflow	Inflow	Inflow	Inflow	Outflow	Outflow
India	Outflow	Outflow	Outflow	Outflow	Outflow	Outflow
Taiwan	Inflow	Inflow	Outflow	Inflow	Inflow	Inflow
Malaysia	Inflow	NA	NA	Outflow	NA	NA
Singapore	Outflow	Outflow	Inflow	NA	NA	NA
Thailand	NA	NA	NA	Inflow	Inflow	Inflow

Source: Morningstar Quarterly Fund flow review

Overall, ASEAN-6 countries are still at a nascent stage when it comes to benefitting from sustainable funds flow because: 1) less than 15% of the companies have an ESG rating; 2) several economies are low to middle income and their sovereign rating is below investment grade; and 3) the cost of capital for transition projects is relatively high.

Funding for start-ups/innovation is skewed towards high-income countries and China. The World Development Report 2024 states that in 2022, of the 3.3m job openings related to low-carbon technologies only 1/3rd were in the middle-income countries. Of the 1,500-plus clean energy start-ups in 2021, only 1/4th were in middle-income countries. This is because the availability of venture funds and private equity is quite low in middle-income countries vs high-income countries. Similarly, the clean energy technology value chains are still dominated by high-income countries and China, which include solar photovoltaics, wind turbines, EVs and battery value chain.

Brown products lock-in and just transition: Middle-income countries with a high degree of specialization (of physical, institutional and human capital) in declining sectors that cannot be easily transitioned to new opportunities face the highest risks. In general, the risk of so-called 'brown lock-ins' is negatively and significantly associated with the ease of transitioning to green or overall non-brown products. The energy transition will reduce the demand for workers who extract and refine coal, natural gas, and oil. At risk are those employed in energy-intensive manufacturing industries, such as basic chemicals, non-metallic minerals, primary metals and automobiles. The other issue weighing on the transition is that the brown industries in the low and middle-income countries are state-owned enterprises whereas the private sector leads the modern renewables sector.

Lack of carbon pricing could dent competitiveness and leave high risk for future liabilities: Carbon prices have been rising over the past few years due to carbon taxes on hard-to-abate sectors, energy taxes or fuel surcharge and removal of inefficient fuel subsidies. However, geopolitical disruptions have led to an increase in fuel subsidies to USD1t in 2022 because at least 60 countries increased subsidies and 98 countries announced energy related measures, including subsidies for fuel, electricity, transport and EVs.

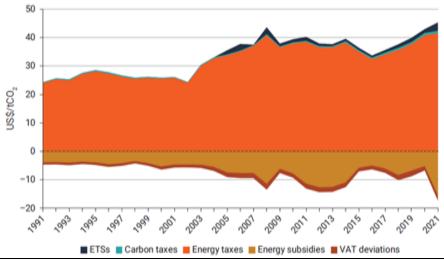


Fig 82: Low penetration of carbon taxes and emission trading schemes (ETS)

Source: World Bank

Except Singapore, none of the ASEAN countries have an explicit carbon tax. However, Malaysia and Indonesia have established a voluntary carbon market to take advantage of their large tropical forests and natural capital. Vietnam, the Philippines and Thailand too have launched limited initiatives to allow voluntary carbon credits. Singapore has an active voluntary carbon credit exchange, which is connected with other global exchanges. However, the volume in these voluntary carbon markets remains low. Globally, the

carbon pricing is successful only in the form of carbon tax or emissions-trading schemes (EU/California/Canada/China etc). The fact that the size of the voluntary carbon markets remained at USD1.5b vs that of the emission trading system (ETS) market of USD200b in 2023 proves the point. Moreover, a recent MSCI report stated that carbon credit is used by only 0.3% of companies using its ratings. While the companies using carbon credits have more reliable netzero targets, the usage of carbon credits remains very low at 0.3% owing to spurious credits, overestimation of claims and lack of global agreement for exports, etc.

Fig 83: Carbon-credit use among MSCI All-World Index during 2017-2022

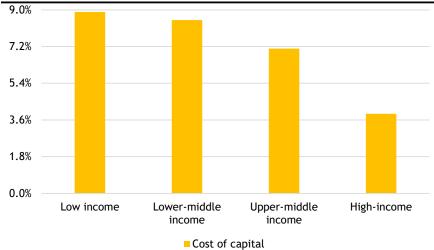
Companies' credit use, 2017-22 (tCO2e)		ber of anies	% of companies	Total credits used (MtCO2e)	Credit use as % of Scope 1+2 emissions	Credit use as % of Scope 1+2+3 emissions	Report usage designation		
Zero	7,6	517	86%	0	0.0%	0.0%	Non-users		
1 to 1,000	1 to 1,000 25		257		3%	0.1	0.1%	0.0%	Immaterial users
1,001 to 10,000		359	4%	1.5	2.2%	0.1%			
10,001 to 100,000	970	342	4%	13.4	21.3%	0.8%	Material users		
100,001 to 1,000,000	970	203	2%	64.8	49.2%	1.4%	Material users		
>1,000,000		66	1%	309	83.7%	2.7%			
MSCI ACWI IMI	8,8	344	100%	389	4.7%	0.3%			

Source: MSCI

The table above suggests that the voluntary carbon credit markets are unlikely to implement carbon pricing in $3/4^{th}$ of the countries in the world (c. $1/4^{th}$ have a carbon tax/ETS in some form). This calls for an explicit carbon tax or an ETS in ASEAN along with high-quality carbon credits. Due to this concern of little carbon pricing in $3/4^{th}$ of the world's markets, Mckinsey has called for a carbon price of USD150-225/t of Co2 emission by 2030 in order to avert worsening of the climate change in the form rapid and uninsured losses cause by natural catastrophes.

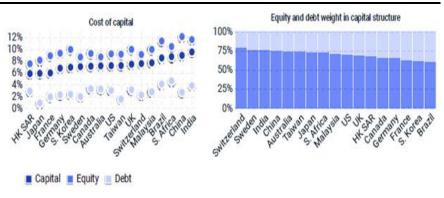
Cost of capital in ASEAN is high, affecting scalability in RE sector. The cost of capital for low-carbon technologies affects the investment decisions of both financial institutions and private companies. Data on the cost of capital in 45 countries using solar PV or wind technologies reveal that the cost of capital in middle-income countries is twice that in the high-income countries. The high cost of capital has material implications for affordable energy.

Fig 84: High cost of capital for renewables in low and middle-income countries



Source: IRENA 2023

Fig 85: Average cost of funding and capital structure by home market



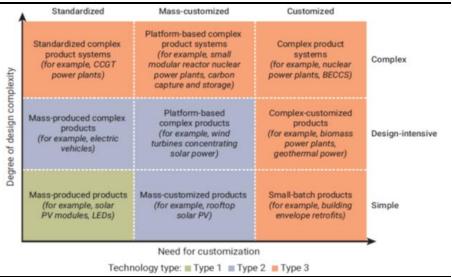
Source: MSCI ESG Research

The graph above clearly highlights the cost of funding and capital structure differs across markets, mainly due to the risk profile of a particular company. We believe the cost of borrowing remains higher in the emerging markets and it is not easy to raise debt due to a high-risk profile.

Opportunities and investment themes for ASEAN from energy transition

Middle-income ASEAN countries have a role to play in global decarbonization by becoming global suppliers of energy technologies.

Fig 86: Different technologies vary on degree of complexity and need for customisation

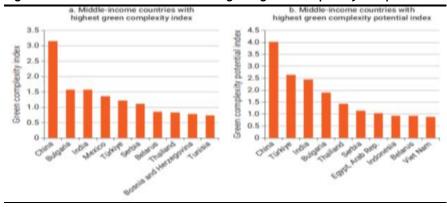


Source: World Development Report 2024

Middle-income countries of ASEAN have untapped potential to manufacture green products

Middle-income countries tapping into manufacturing opportunities for clean energy technologies are typically those already competitive in manufacturing or exporters of high-technology products. Countries experiencing a rapid exploitation of all emerging disruptive technologies are also witnessing a rapid exploitation of low-carbon technologies. Within ASEAN, Thailand, Indonesia and Vietnam are considered as top contenders for the untapped potential to manufacture green products. However, unlike EU's Green Deal (USD1t budget), the US' Inflation Reduction Act (USD700b budget) and China's planned shift to green energy, ASEAN does not have any government-backed scheme/incentive plan to invest in the energy transition at scale.

Fig 87: Middle income countries with highest green complexity and potential



Source: World Development Report 2024



2. ASEAN is creating opportunities through circular economy to push sustainable investment. ASEAN is actively creating opportunities for sustainable development of the ASEAN Economic Community (AEC.) It is working on implementing a circular economy framework by assessing possible synergies across different sectors and stakeholders. One its five strategic priorities is Sustainable Finance and Innovative Investments. This relates to supporting sustainable investment, mainstreaming the circular economy in AEC-related projects and promoting the financing of new business models that support circular economy.

Among key proposed initiatives are: 1) considering the use of different and new financial instruments for clean energy-related projects in accordance with the ASEAN Green Bond Standards, the ASEAN Green Catalytic Finance Facility of the ASEAN Infrastructure Fund, or through the development of an ASEAN taxonomy; 2) considering the use of fiscal and tax policies, such as green tagging for expenditures, fiscal incentives for green investments, environmental taxes, and reward mechanisms to support clean energy goals within the context of broader national strategies.

3. ASEAN's strategic priority is to ensure large opportunities and reduction of risk through decarbonization. The other strategic priority of the AEC is to reduce energy use and adopt renewable sources, which is key to promote circular economy. The development of the strategy employs an impact-led approach to design collective actions at the regional level that could mitigate the challenges to deploy decarbonization solutions to the source of carbon emissions. With its vast natural capital ASEAN could generate high-quality carbon credits that may attract investments and mobilize capital into green or transition projects in the region.

ASEAN is pursuing eight decarbonization strategies as per its Economic Integration Brief in Dec 2023. These are as below:

- a) Accelerate green value chain integration: Establish co-operation frameworks and remove barriers to bring green products to market faster
- b) Regional circular economy supply chains: Incorporate definitions and facilitate trade deals to support circular economy via regional trade
- c) Connect green infrastructure and market: build interconnectivity for green technologies and decarbonisation solutions to underpin regional deployment
- d) Interoperable carbon markets: develop credible carbon markets that are interoperable with each other and global markets
- e) Credible and common standards: develop taxonomies and definitions on GHG reporting, carbon credits and energy efficiency that align with requirements of key markets
- f) Attracting and deploying green capital: build effective pathways to attract necessary capital to region and between member states
- g) Green talent development and mobility: classify and ensure regional access to skills needed for carbon neutrality journey
- h) Green best practice sharing: share best practices in R&D, technology and green transition from within ASEAN and borrowing from the best of the world

Except developing an ASEAN taxonomy, the other strategies mentioned above are moving at a slow pace in terms of implementation.

Decarbonizing the value chain is critical to maintain ASEAN's competitiveness in trade amid increasing climate action. Climate-related policies and regulations, particularly in developed economies, such as the EU Green Deal and the US Inflation Reduction Act (IRA) are reshaping how countries trade with each other. Moreover, many multinationals are transforming their supply chains to be sustainable and green as part of their pledge to address climate

crisis. Such shift in international trade behaviour requires businesses, especially SMEs, which make up more than 90% of the businesses in ASEAN, to adapt and decarbonize or risk being left out of the supply network.

4. For ASEAN's decarbonization to become successful, the energy transition in some of its biggest economies needs to increase rapidly. These include Indonesia (36.4% of ASEAN GDP), Thailand (13.7%), Singapore (12.9%), Vietnam (11.3%), Malaysia and Philippines each 11.2% and the remaining countries (3.4%). While economic structures differ across ASEAN countries, the share of primary sector (agriculture and mining) rose to 16.4% in 2022 from 15.7% in 2015. The share of secondary sector (manufacturing, electricity, gas, water and construction) fell to 29.8% in 2022 from 30.2% in 2015. The tertiary sector (service industries) saw a slight decrease to 50.5% in 2022 from 50.9% in 2015.

ASEAN countries manufacturing share in Malaysia, Vietnam and Thailand ranges from 23-27%, whereas that in the Philippines and Indonesia it is 17-18%. Manufacturing within ASEAN grew at 5.2% in 2022. Among other fast-growing sectors included real estate (7%), transportation and storage (16%), information and communications (7.1%), accommodation (23.8%), and electricity (6%). This suggests ASEAN needs to scale up its renewable capacity significantly, invest in energy efficiency and power transmission/distribution infrastructure and low-carbon transportation as its top priority. Given the high share of exports from ASEAN and the ongoing reshaping of global supply chains from China to the US/EU, rapid decarbonization will improve its competitiveness and reduce its carbon-liability risk.

5. ASEAN needs 5-7x increase in its clean energy spending in the next 5-10 years. The ASEAN new Vision 2045 is a strategic plan that aims to intensify integration and enhance connectivity. The new vision plans to confront issues such as digital transformation, environmental sustainability and socioeconomic inequalities. The low carbon energy transition scenario as per ADB Report on ASEAN for 2024 (2019 to 2050) suggests that the power investment cost will need to be 40% higher at USD910b vs the BAU (business as usual) scenario. And of this entire investment, 80% will go into renewable power capacity development. If the low carbon energy transition scenario is followed, the ASEAN region needs to add 600GW of renewable energy capacity between 2019 and 2050, or an annual increase of at least 20GW.

Fig 88: Clean energy investment in emerging economies needs to leapfrog (USDb)

			Sustainable	e Developme	nt Scenario	Net-Zero E	missions by 20	50 Scenario
	2015	2022	(1) 2026- 2030	(2) 2031- 2035	(2)/2020 level	(1) 2026- 2030	(2) 2031- 2035	(2)/2020 level
EMDEs	538	773	1,784	2,219	3	2,222	2,805	4
People's Republic of China (PRC)	287	511	730	850	2	853	947	2
EMDEs excluding PRC	251	262	1,054	1,369	5	1,369	1,858	7
Southeast Asia	28	30	171	208	7	185	244	8
India and Other Asia	76	82	321	418	5	348	467	6
Africa	26	32	160	207	6	203	265	8
Latin America	63	66	150	209	3	243	332	5
Middle East and Eurasia	57	52	223	303	6	390	550	11

EMDEs = emerging and developing economies

Source: IEA

At present, around USD770b is invested annually in clean energy in emerging and developing economies (EMDEs), but most of this investment is concentrated in a few large emerging economies, such as China, India and Brazil. In particular, China accounts for $2/3^{\rm rd}$ of this total investment. To meet the Paris Agreement goals, EMDEs need to make annual (public and private) investment in clean energy more than triple from the current



USD770b to USD2.2t under the International Energy Agency (IEA)'s sustainable development scenario (SDS) and USD2.8t under the net-zero emissions by 2050 scenario, by 2031-2035 and maintaining similar amounts up to 2050.

Increased affordability of renewables could support major escalation in investment. Excluding China, the amount of investment needs to rise more sharply, by about seven fold from the current USD260b to around USD1.4t under the SDS and USD1.9t under the net zero emissions by 2050 scenario. To mobilize these levels of investment, expanding private funds through blended finance schemes is necessary. The positive factor that could drive these investments in ASEAN more than before is the sharp fall in Levelized Cost of Electricity (LCOE), which in most markets is well below coal and in some markets below gas.

Tripling renewable energy and 10x increase in EVs are the major global targets that could benefit ASEAN with a low base. During the COP28 conference, all the member countries decided to triple the renewable capacities by 2030. The total installed renewable capacity of 3870GW in 2023 needs to increase to 11174GW by 2030. The addition of 473GW of renewable capacity in 2023 was a record but still well short of 1043GW to meet the 2030 goal. Other goals laid out during COP28 last year in terms of EVs and plug-in hybrid vehicle stock at 40m is well short of the 2030 target of 360m.

Similarly renewable and power generation capacity needs investments of USD1.5t pa till 2030 but reached only USD570b in 2023. As per the International Renewable Energy Agency (IRENA), USD720b investment pa is needed for power grids to meet the 2030 goals but it amounted to only 50% in 2023.

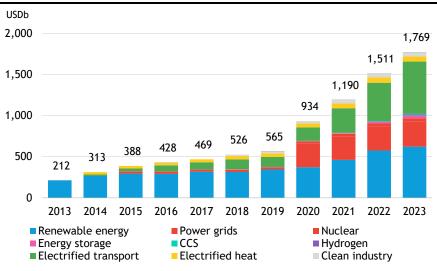
Fig 89: ASEAN countries have favourable framework in place for RE investment

Country	Foreign equity ownership (Per cent)	Investment incentives	Feed-in tariff (FIT)	PPP/PPA	Land acquisition	Remarks
Brunei Darussalam						
Cambodia	49	0		0	Subject to regulation	Only a Cambodian national may own land. A locally registered entity car own land if deemed to have Cambodian nationality.
Indonesia	100	Ø	Ø	Ø	0	Various scales of foreign equity ownership: Small-scale power generation (1–10 MW) projects, maximum equity ownership of 49% Larger-scale (> 10 MW) projects, 95% foreign equity ownership Public-private partnership scheme during concession period, 100% are allowed
						Land acquisition is allowed under certain conditions. FITs and PPAs are subject to negotiation.
Lao PDR	100	0	Ø	0	0	The Government promotes renewables development through FITs and PPAs. Land tenure or acquisition depends on the project.
Malaysia	49	0	0	0	Ø	49% foreign equity restriction required to benefit from FITs.
Myanmar	100	0		0	0	In accordance with the Myanmar Investment Law (MIL) and Myanmar Special Economic Zone (SEZ) Law, Myanmar provides exemptions or reliefs on income tax, customs duties and other internal taxes for renewable projects.
						Foreign investors also have the right to land use for 50 years and for two consecutive of 10 years under the MIL.
Philippines	100	0	0	Ø	0	FIT for all renewables (solar, wind, hydro, biomass) but suspended, subject to review.
Singapore	100	0	8	0	8	Mostly focused on solar projects and renewable energy imports. Limited land availability impedes large-scale solar deployment. Financial support for renewables and improving energy efficiency.
						Does not provide subsidies such as FITs or utilize net metering.
Thailand	100	0	⊘	⊘	⊘	Differentiated FITs for different types of renewable energy and project capacity.
Viet Nam	100	0	0	Ø	0	All renewable energy projects may be entitled to land rental exemption for up to three years during construction.

Source: ASEAN Investment Report 2023

6. Investment in power grids hold the key to scalability of new energy

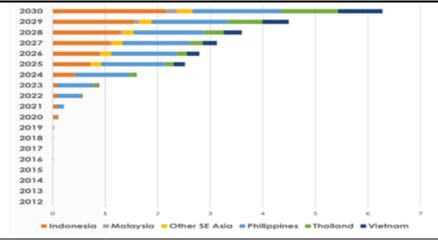
Fig 90: RE, electrified transport and powergrids have highest share of investments



Source: BloombergNEF

According to Bloomberg NEF, in 2023 out of the USD1.8t of clean energy investments, c.USD310b was in power grids. ASEAN is building power grids across the region, especially between Singapore and Malaysia, and Singapore and Indonesia because Singapore is completely dependent on imported energy. Recently Singapore and Australia signed an agreement to export clean power to Singapore. ASEAN is working on ASEAN Power Grid (APG), which would establish interconnection between countries with vast renewable power resources and those short of it. It would take care of the incremental power demand within the region, increase the regional energy security, create investments and jobs and reduce emission intensity. A few projects interlinking Malaysia, Singapore, Thailand and Lao PDR are already in operation and those connecting Indonesia are under the planning stage.

Fig 91: ASEAN: energy storage capacity (GW) is negligible but expected to rise rapidly

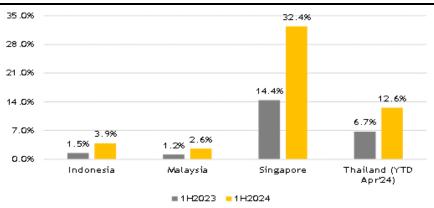


Source: BloombergNEF

Energy storage is one of the fastest growing technologies globally and is poised for rapid adoption in ASEAN due to several data centre projects being set up by global tech majors in the region. Moreover, lower battery prices and increased RE penetration would improve the ROI of battery storage projects across small industries and data centres.

Transition to low-carbon transport is the 2nd biggest energy transition theme in ASEAN

Fig 92: ASEAN: Fully electric car sales at 2.6% to 32.4% of total car sales in 1H24



Source: PWC Strategy, Gaikindo, MAA, Data.gov.my, Singapore Road transport, Maybank IBG Research

ASEAN's EV penetration is low both for motorbikes and vehicles, mainly due to the vast price gap with liquid-fuel-based vehicles. However, this gap should narrow in the next 2-3 years due to: a) increased local manufacturing, aided by backward integration into battery manufacturing; b) fall in battery prices; and c) subsidy/incentives by local governments to EV makers as well as consumers. In fact, ASEAN is expected to become a leading exporter of full electric as well as hybrid vehicles to the world, led by Chinese/South Korean and Japanese automakers setting up plants in the region over the next 2-3 years.



Malaysia risks & opportunities



Malaysia

Risks/Opportunities and Investment Themes: Better placed for transition within ASEAN and middle income countries

In this report we review Malaysia's materiality matrix, its environmental risk/opportunities vis a vis ASEAN and how it is placed to capitalize on these. Annexure to this report includes ASEAN and Malaysia's Sustainable Development Goals (SDG) performance. We also discuss emerging investment themes as a result of its sustainable transition policies.

High

Per capita energy consumption

Deforestation

Carbon offsets

Air pollution

Per capita emissions

Fossil fuel subsidies

Methane Leaks

Carbon pricing

Waste and waste management

Low

Current or Potential Business Impact

High

Fig 93: Materiality Matrix - Malaysia

Source: Climate Watch data

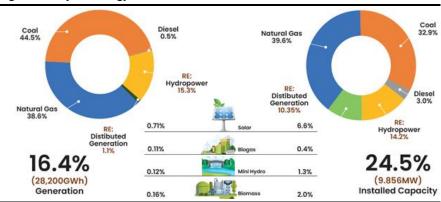
Background: Malaysia accounts for 0.77% of global emissions, emitting 367.76m tonnes of CO2 equivalent in 2021. This makes it the world's 25th largest emitter. In terms of commitments, it has a net zero by 2050 target outlined in the Twelfth Malaysia Plan, and a second, updated version of its Nationally Determined Contribution (NDC), where it updated its mitigation target to 45% reduction in GHG emissions (unconditional) by 2030 compared to 2005 levels.

According to Malaysia National Climate Change 2.0, the average annual temperature in Malaysia is projected to increase by 1.1-1.5C by 2050, and by 1.7-2.1C by 2100, with Sabah and Sarawak facing higher levels of increments. The increase in temperature is likely to impact the country, and this includes water security, food security, public health and biodiversity with compounding effects on vulnerable sectors and communities.

Malaysia has traditionally been a fossil-fuel producer due to its bountiful oil & gas reserves, with coal imports increasing as energy demand rises every year by around 2-3%.

It has a 1.1% share of renewables in electricity generation, putting it at No. 96 of 198 countries. Its share of coal in electricity generation is 44.5%, ranking it No.14.

Fig 94: Malaysia energy mix



Source: National Climate Policy 2.0

Malaysia's electricity capacity is divided between independent power producers (IPPs) and Tenaga Nasional Berhad (TNB). The nation operates three major grids in Peninsular Malaysia, Sabah and Sarawak, each facing unique challenges and opportunities in the transition to cleaner energy. Malaysia's proximity to the equator provides strong solar irradiance in the range of 1575-1812 kwh/m2 throughout the year, comparable to countries with more mature and developed solar PV markets. According to one think tank report reviewing Malaysia's renewable resource potential, it can install 269GW of solar PV, 13.6GW of large hydro, 3.6GW of bioenergy, 2.5GW of small hydro and 229MW of geothermal.

How is Malaysia placed vis a vis risks and opportunities?

Risks

1. Climate disasters: flooding impacting the economy, the insurance industry but adaptation and resilience is strong

According to the Department of Irrigation and Drainage, 10.1% of the country's total area is a flood-prone with nearly 5.67m people affected by floods. Flood risks in Malaysia have been exacerbated by local factors such as rapid urbanization, ineffective drainage systems, deforestation and logging. It is estimated that floods caused at least MYR7.9b in losses to the country between 2021 and 2023, with the highest losses occurring in 2021, totaling MYR6.1b. Financial institutions in Malaysia face challenges in pricing and monitoring flood risk due to data gaps. Floods severely impact supply chain linkages. The World Bank found that losses can be particularly impactful for agricultural, services and industrial sectors. Transport infrastructure and utilities are also vulnerable, which indirectly impacts business production.

The Malaysian coastline is projected to face a maximum sea level rise of 0.25m by 2050 and 0.74m by 2100. This will impact Malaysia's coastal and food resources, settlements, coastal infrastructure, and the livelihood of fisherman and coastal communities.

Malaysia's vital palm oil industry, which contributes over MYR130b in export revenue, is expected to experience a 3.3% reduction in yields during El Nino and La Nina events. Moreover, it is anticipated that the proportion of oil palm plantations vulnerable to flooding will increase to 7.48% by 2100 with 7% at risk from the rise in sea level.

In addition to the growing risk of flash floods, where 96 out of 281 towns and cities are projected to be flood prone up to 2100, cities are also experiencing elevated temperatures due to the urban-heat-island effect. Currently 75% of



the population resides in urban areas and that number is projected to increase to 90% by 2050.

Other risks include heat-related deaths at 45 per 100,000 population by 2080 vs less than 1 in 1961-90, for 65+ year-olds in Malaysia with high-emissions scenario and emergence of zoonotic diseases. Coral bleaching often exacerbates during El Nino episodes, further disrupting fisheries and the tourism supply chain as over 40% of corals succumb to bleaching, posing significant threat to marine-based industries and livelihoods of coastal communities. Diminishing mangroves is another area of concern, turning carbon sinks into carbon sources in the future.

In our view, these risks are currently not reflected in the financials of any sector or companies or their non-financial reporting. However, real estate, banking and insurance, agriculture and consumer product businesses will be at risk from these natural catastrophes.

2. Transition risks and climate financing gap

As a trading nation and an oil-producing country, navigating these transition risks require a strategic response. Policy, regulatory, technological and market shifts are likely to significantly impact Malaysia's economy. Currently, 20-30% of Malaysia's economy relies on sectors which face high transition risks, such as oil & gas, power generation, metals and mining. Bank Negara Malaysia (BNM) estimated that the country stands to lose USD65.3b worth of annual export revenue if it fails to comply with these transition risks. This is in response to the global energy transition which will require less reliance on the oil & gas sector.

Malaysia received MYR364.8m in external financing for climate action. However, estimates by NETR alone indicated MYR1.2-1.3t in investments is needed by 2050; hence international sources need to be utilized in order for Malaysia to meet the financial needs for the low-carbon transition and climate resilience development.

Currently, climate and environmental-related initiatives are funded largely through public financing. Public budgetary allocations remain low in absolute terms (<1% of the total GDP), and relative to the significant potential benefits that biodiversity and ecosystem services can generate. One major challenge is the absence of a dedicated fund specifically allocated for climate change. Banks and financial institutions perceive low-carbon investments as risky, which hampers their willingness to provide adequate financing options.

- 3. Fossil fuel subsidies are still high: In 2024, diesel prices leapt as Malaysia cut diesel subsidies, which is expected to save an annual USD853m, with the budget being re-directed to low-income groups. While the phasing out of diesel subsidies comes with short-term pain for consumers, it could cement Malaysia's commitment to clean energy policy in Southeast Asia.
- 4. Carbon pricing is not in place: Despite carbon pricing being mentioned in the Twelfth Malaysia Plan, there are no immediate implementation plans. There are instead, internal mechanism through policies like the moratorium on new manufacturing capacity. The Malaysia Budget 2025 mentioned that carbon tax could be implemented from 2026 on the iron & steel and energy sectors but no details on the scope and quantum are disclosed as yet. There is a voluntary carbon market called the Bursa Carbon Exchange that commenced operations in 2022 but the volume of carbon credits on the exchange remains lacklustre.
- 5. Air pollution is an issue: Air-quality standards in Malaysia (NMAAQS) and pollution concentrations greatly exceed WHO's Air Quality guideline recommendations, but air pollution is still an issue due to a large stock old vehicles and an entire fleet of vehicles running on liquid fuel.

The main sources of pollution are industrial manufacturing (29% of the PM emissions load), power generation plants (39% of PM 16 emissions and approximately 62% of both NO2 and SO2 emissions), vehicles (12% of PM emissions, but they represent 24% of NO2 emissions), and open burning activities (20% of load). In 2020, PM10 averaged 20 µg/m3, which was the lowest recorded since 2010 and PM2.5 was 12 µg/m (which is still more than double the WHO's recommended concentration).

Vehicle emissions impact air equality. There was a 4.5% increase in registered motorcycles in 2022 and a 4% rise in cars from 2021. While it has cleaner air than neighbouring Indonesia and Thailand and the government is pushing for EV adoption, uptake in EVs has not been significant enough to counteract the increasing vehicle emissions.

Opportunities

1. In May 2023, the government reaffirmed its commitment to unlock economic opportunities through low-carbon transition, setting out the ambitious target to achieve 70% RE installed capacity in the power mix by 2050. The National Energy Transition Roadmap (NETR) aims to reinforce this ambition and inform an accelerated RE rollout by affirming two essential targets: 1) 70% RE installed capacity share by 2050; and 2) no new coal power plant. The share of coal-fired power generation is expected to decline over time, driven by natural retirement timelines of existing coal-fired power plants. No new coal-fired power generation will be developed, leading to an almost complete phase out by 2045. The ambition to achieve 70% RE share of installed capacity by 2050 would be predominantly driven by installation of solar PVs.

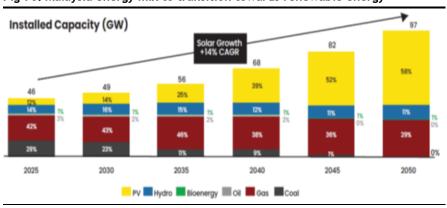
17,996 MW Biogas **Biomass** Solar 406 MW 998 MW 7,280 MW

Fig 95: Malaysia renewable energy target



Source: Malaysia Energy Transition Roadmap

Fig 96: Malaysia energy mix to transition towards renewable energy



Source: Malaysia Energy Transition Roadmap

November 19, 2024



More Capex and capital needed for growth of renewables

The Malaysia Renewable Energy Roadmap in 2021 set bold targets for renewable energy to account for 40% (18 gigawatts) of the country's energy makeup by 2035. In May 2023, the Ministry of Economy committed to a new target of RE being 70% of total generation capacity by 2050. In 2019, natural gas was 42% of the primary energy supply, crude oil, petroleum and others following at 33.3%. coal and coke at 21.4% and renewables at only 3.4%. Thus, despite ambitious targets, the primary energy makeup is heavily dominated by fossil fuels.

When it comes to electricity, renewables represent 22% of installed capacity, with hydropower being the main source. 1.2GW of 7.8GW of RE was installed through regulatory schemes: the Feed-In Tariff (FIT), the Large Scale Solar (LSS) programme and the Net Energy Metering (NEM) mechanism. In addition to these, the government provides financial incentives through Green Investment Tax Allowance (GITA), the Green Income Tax Exemption (GITE) and the Green Technology Financing Schemes (GTFS). Islamic finance is also an option for financing with "green sukuk", a form of green bond used to finance 5 RE projects already.

The biggest hurdle to RE integration is the lack of financing at the national level. In 2023, Malaysia spent about MYR81b (USD17b) on subsidies, primarily spent on blanket fuel assistance. While the government has started to phase out subsidies, such as cutting diesel subsidies earlier in the year, the enormous amount spent on fossil-fuel subsidies is the biggest barrier to advancing the country's renewable energy makeup. Energy subsidies have eaten up about 7% of annual GDP in the past decade, and have been mostly in the transport sector, making it one of the cheapest countries in the world for gasoline.

IRENA identifies solar photovoltaic (PV) as a key technology for renewable transition. Malaysia has wide-ranging solar (located near the equator) and wind energy resources, as well as hydropower potential (high rainfalls).

Tenaga Nasional (TNB MK) is significantly ramping up capex to deliver energy transition, with investors remaining optimistic on the utility giant.

An industry-wide capex investment and increase will be needed to continue the transition.

Fig 97: Projected Investment for Malaysia's Power Sector Transition by 2050

Areas	Investment Value (RM billion)
Capacity & Generation Development	370
Development & Strengthening of Network and Grid Infrastructure	184
Grid Energy Storage System Integration	50
Carbon Capture, Utilisation & Storage	33
Total	637
Projected Investment: Malaysia Energy Transition for the power so	ector in 2050

Source: Malaysia's Sustainable Energy Development Prospectus



E&E sector, transport driving energy consumption and will drive transition

Transport has been dominating the country's final energy consumption for the past decade, consuming three quarters of the oil products, representing the largest share in its total consumption. Malaysia is also a net exporter of oil & gas but an importer of coal. The makeup in 2019 was oil at 66%, natural gas at 29%, coal at 3% and direct use of RE only 1%. Malaysia's total final energy consumption was 2.8 exajoules in 2019, which is 65% of the total primary energy supply. The transport sector emerged as the largest consumer, devouring 38% of the total final energy. Buildings contributed around 12% of the overall energy demand, as a high share of households have airconditioning. Industries predominantly relied on natural gas and oil for process heat generation.

Electrification is seen as the best solution for the de-carbonization of the transport sector. The EV industry is growing, with several supportive government policies, such as exemption from road taxes and import duties. The Battery Electric Vehicle Global Leaders Initiative allows foreign EV companies to sell in Malaysia without Approved Permit rules. There's also tax incentives for EV charging equipment manufacturers and companies renting EVs.

Malaysia's EV and Electronics (E&E) is soaring due to rising demand for EVs, renewables, data centres, semiconductors and digital economy. Malaysia contributed 23% of US semiconductor trade in 2022. It is rushing investments into data centres, semiconductors and EVs, which will increase energy demand and consumption and force transition to low-carbon sources owing to the requirement of customers.

3. Per-capita emissions dominated by the energy and transport sectors

In terms of emissions portfolio, the energy sector accounts for more than 79% of emissions, mainly through energy production and transportation. Industrial products and processes account for another 10%, agriculture 3% and waste 8%. The most significant reductions were observed in the oil & gas sector through minimization of venting and flaring, decrease in waste through paper recycling, increased hydropower generation and policy boost to the renewable energy sector.

CO2 emissions from the transport sector represented 28.8% of total fossil fuel combustion in Malaysia, well above the global average of 24.5%. Malaysia's Low Carbon Mobility Blueprint (LCMB) and the National Energy Transition Roadmap (NETR) set out a goal for EVs to make up 15% of total industry volume by 2030, although currently only 2% of Malaysia's vehicles are electric. Additionally, the government announced the rolling out of 10,000 charging EV stations by 2025. The government has introduced several tax incentive policies such as the Green Investment Tax Allowance (GITA) - 100% allowance for setting up EV charging system, battery swapping and owning of EVs for commercial and industrial use. Transport is the largest energy-using sector in Malaysia and the third largest emitter of GHG emissions after electricity and land-use change and forestry.

The NETR is guided by a broad spectrum of energy transition levers which include energy efficiency, renewable energy, hydrogen, bioenergy, green mobility, carbon capture utilization and storage (CCUS) that can potentially generate an estimate of MYR25b in investments.

The government has recognized the need to transition towards a cleaner transportation system by setting a target of increasing the share of urban public transport and EVs by 50% and 38% respectively, by 2040 under the Low Carbon Nation Aspiration 2040. Greening the automotive sector remains a



challenge without a fuel economy standard to ensure new vehicle fleets are less emission intensive moving forward. Additionally, the high costs associated with replacing existing fleets compound this challenge. Despite the increasing affordability of EVs they remain inaccessible to the masses due to the high cost of ownership and range anxiety caused by insufficient EV charging infrastructure. Moreover, the upfront cost discrepancy between an EV and an ICE bike is an obstacle to widespread adoption.

EV adoption has been lagging in Malaysia when compared to other developing countries in Asia as buyers and sellers wait for a more coherent, long-term policy framework. A notable development in Malaysia's EV market was Tesla's entry in 2023, opening orders for its Model Y. In a groundbreaking deal, the first of its kind under Malaysia's Battery Electric Vehicle Global Leaders initiative, Tesla will be able to sell its cars in Malaysia without import tariffs or markups and establish a regional headquarters in Malaysia. Malaysia aims to set itself up as an EV and EV battery manufacturing hub, though it is currently at quite a nascent stage in the process of establishing itself.

4. Hydrogen economy is underdeveloped but has a big potential for exports in future

The Ministry of Science, Technology and Innovation (MOSTI) created the Hydrogen Economy and Technology Roadmap (HETR) to guide the development of Malaysia's hydrogen economy. Bio hydrogen production from palm oil effluents and waste through dark fermentation, gasification process and various treatment methods is one such promising route. Another route is hydrogen production through new hydropower projects. Overall, the total gross hydropower potential is c.414k GWH pa. This scenario if executed would potentially generate revenue of MYR7.7b from hydrogen-based power generation. The major demand for green and blue hydrogen could come from mobility and industry. Malaysia is working on green hydrogen, blue ammonia, green ammonia and green methanol projects along with S Korea and Japan. Malaysia's largest utility TNB will collaborate with its oil & gas giant PETRONAS (unlisted) to develop green hydrogen ecosystem and carbon capture and utilization system using TNB's power plant assets. The country envisages energy storage deployment in Sabah and Peninsular Malaysia whereas hydropower will serve as storage in the Sarawak region. Bioenergy is expected to contribute c.16% of Malaysia's energy transition by 2050, primarily as biofuel for aviation and as a substitute for fossil fuel in sectors such as iron & steel and cement.

ASEAN is keen to build a fully integrated power grid system for its member states.

ASEAN Power Grid (APG) project anticipates facilitating cross-border electricity trade, addressing the escalating demand for electricity, and enhancing access to energy services throughout the region. This would reduce cost and increase opportunity to harness various renewable sources from countries with resource advantages, supplying power to nations with fewer resources. In the current scenario, ASEAN countries engage in regular electricity export and import but in small quantities. Countries in ASEAN generate 1053TWh of electricity annually and export 36TWH within themselves. Currently, Laos is the major exporter in the region, followed by Malaysia, Thailand, Vietnam and Myanmar. Malaysia's TNB is following Grid of the Future strategy wherein it will modernize and digitize the grid and distribution infrastructure to facilitate increased integration of distributed generation and renewables. Moving towards this goal, Malaysia and Singapore upgraded their electricity interconnector in 2022, which was first established in 1983. This interconnector is crucial in the Lao PD-Thailand-Malaysia-Singapore Power Integration Project facilitating cross-border power trade and contributing to the broader APG objective. This is a short-term deal for trials. More recently, another 100MW deal was signed between Tenaga



Nasional (TNB MK) and Keppel Electric Pte (unlisted). Malaysia further intends to explore interconnection collaborations with countries such as Thailand and Indonesia. There are early discussions to build transmission lines from Sarawak to West Kalimantan in Indonesia.

6. Palm Oil industry is getting ready to comply with EU Regulation

Malaysia is one of the largest biofuel suppliers, with 5.9m hectares of palm oil plantations. It is the world's second largest producer of palm oil. The EU regulation of deforestation-free products presented a significant risk to Malaysia, with phasing out palm oil being unsustainable until they develop their long-term climate plans. Malaysia is working to prove that Malaysian palm oil is sustainable, working with Japan to turn felled palm trees into biomass energy. Typically, palm oil trees decompose, emitting methane gases.

A study published in Nature Climate Change says that methane emissions from palm oil wastewater equated to 115m tonnes of CO2 in Indonesia and Malaysia. Capturing the methane emissions and turning them into RE could be a good solution, especially for off-the-grid power generation.

7. Waste-to-energy plant model considered as solution to storage problems

Malaysia has a low recycling rate of 31% relative to neighbouring Asian countries. Most of the waste disposal is sent to landfills, of which Malaysia has 165, along with eight sanitary landfills, and three inert landfills for materials such as sand and concrete. The government has set a target of 40% recycling rate by 2025 and many experts have forecasted the issue of running out of space to dispose of waste in Malaysia. In 2018, Malaysia's waste disposal was 38,000 tonnes per day, exceeding the Japan International Cooperation Agency (JICA) 2020 study's proposed rate of 30,000 tonnes per day.

The Malaysian government's approach to country's waste management issues is the introduction of six waste-to-energy plants by 2025, which will allow the processing of non-recyclable waste into energy fuels and heat, hoping to reach their National Recycling Rate (NRR) target of 40% by 2025 with this initiative.

Greenpeace released an article talking about the environmental hazards of the project, suggesting that it propagates a linear "take-make-waste" economy as opposed to the circular economy the government is aiming for. However, MIDA reports that the waste-to-energy plants can help Malaysia become a zero-waste economy and also produce beneficial spillover effects by providing electricity to nearby communities.

8. Circular Economy (CE) as a business strategy

Malaysia's CE Framework identifies 14 initiatives and enables which are targeted interventions to spur and support the development of Malaysia's CE ecosystem.

If consumption rates continue at the current pace, by 2030 Malaysia could generate double the volume of industrial emissions that it does today, produce 22 million tons of manufacturing waste and 84,000 tons of ocean polluting plastic each year, and extract a billion tons of natural-resource material annually. This could lead to several key risks for Malaysia, including vulnerability to global trade fluctuations due to an increased dependence on natural imports, and reduced export competitiveness if we are not able to keep up with requirements in export markets. In addition, Malaysia may not be able to meet its net zero targets as increased usage of virgin materials drives industrial processes and product use (IPPU) emissions. Also, there may be missed opportunities to build new growth areas from higher-end recycled

products within the country, offering the potential to generate additional economic value and jobs.

The manufacturing sectors covered in this Framework include all manufacturing sectors under the New Industrial Master Plan (NIMP 2030) viz; automotive, including electric vehicles, food processing, machinery and equipment, metal, minerals, palm oil based products, petroleum products and petrochemicals, rubber based products, shipbuilding and ship repair, textile, apparel and footwear, wood, paper and furniture. It also includes the priority sectors for NIMP i.e aerospace, chemicals, electrical and electronics, pharmaceuticals and medical devices.

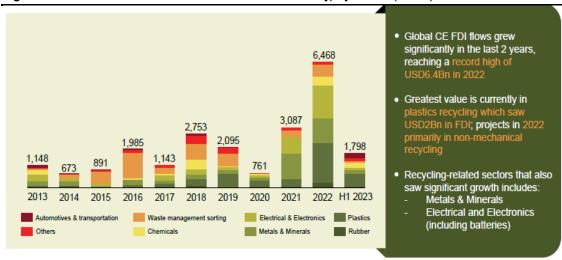


Fig 98: Global Greenfield investments in circular economy, by sector (USDm)

Source: Circular Economy Policy Framework

Global FDI directed at CE projects reached a value of almost USD6.5b in 2022, which is more than double the previous year's value of USD3.1b. Over the years, the focus of CE FDI has shifted from waste management to sector-specific recycling activities. The majority of recycling FDI has been focused on Europe and the US especially in electricals and electronics, plastics and metals. Emerging economies such as Mexico, China and Indonesia have seen growing FDI. Indonesia's most significant investments include plastic recycling projects by Alba Group (unlisted), Indorama Ventures (IVL TB, Not Rated) as well as battery recycling by Attero Recycling (unlisted) where feedstock is sourced locally. Malaysia could capture higher-value recycling activities in segments such as advance chemical recycling and metal recycling from electronics, generating quality employment opportunities and accelerating local adoption of CE practices while providing recycled inputs for domestic manufacturers. As Malaysia advances in CE maturity, there could be opportunity to attract investors interested in CE-related projects.

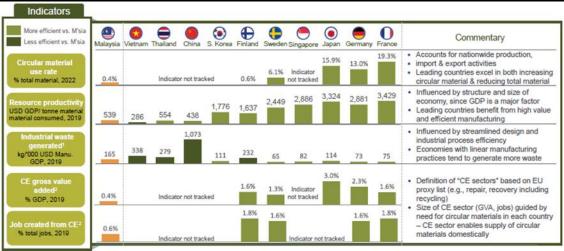
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Fig 99: Quantity of scheduled waste generated by industry in Malaysia, 2022 (Kt)

Source: DOSM (Compendium of Environment Statistics), team analysis

There are five main segments to Malaysia's recycling industry- metals, non-metal minerals, hydrocarbon, solvents, and plastics - with a number of key sub segments within each. Hydrocarbons and plastics represent the most mature segments.

Fig 100: Circular Economy - Malaysia benchmarked vs Global and Asian Peers



¹ Indicator has been divided by volume of manufacturing GDP to provide a better like-for-like comparison across different economies
² Impact is measured by appregating proxy sectors in recycling, repair & use:

Source: UNEP - Global material flow database, Circularity gap report, Ellen Macarthur Foundation, World integrated trade solutions, team analysis

Malaysia is performing slightly better than regional peers Thailand and Vietnam, as it has several proposed policies in the design and distribution stages. However, more can be done to expand and implement these policies to move towards greater maturity in Malaysia. Its performance is well below that of the developed countries and larger economies in Asia.

Large forest cover provides opportunity for nature-based carbon credits but lack of quality is not allowing scalability and investments

July 2024 saw the first auction of Malaysian carbon credits. The credits were auctioned from the Kuamut Rainforest Conservation Project, and is the first offering of Malaysia nature-based carbon credits. Plus (MNC+) was generated from a local forestry project. A McKinsey analysis reveals that demand for Malaysian carbon credits is quite low, lagging other Southeast Asian countries. However, it also revealed that up to one-third of the country's top 80 companies have voluntarily adopted emission-reduction targets, many of which may require carbon credits to fulfill their climate goals in future.



Fig 101: Malaysia trails other ASEAN countries in carbon credit issuances (MtCO2e)





Source: World Bank, McKinsey & Company

Malaysia's 33m hectares of forest coverage are vital for its mitigating role in the climate crisis. There is huge potential for forests to play a role in tradable carbon projects. McKinsey projects that if compliance carbon markets were implemented and policies were standardized and financed, Malaysia could realize an opportunity of more than USD4b in the forest nature-based solution space, given carbon prices of USD10-20 per tCO2e.

Accounting for positive externalities of forests, for example through carbon pricing, might financially incentivize the reforestation of agricultural land. In terms of regulation on this, Malaysia has yet to introduce a carbon price or a compliance market. However, the Bursa Carbon Exchange, a voluntary carbon market, was established in 2022 and auctioned its first carbon credits in Jul 24. Malaysia lags other Southeast Asian countries in carbon credit issuance, with demand being quite low.



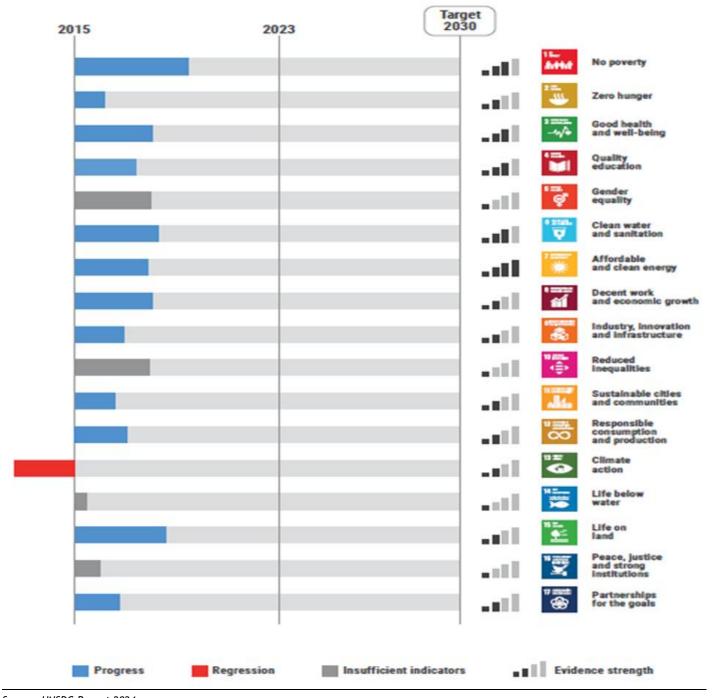
Annexures



Annexure 1: SDG performance ASEAN and Malaysia

We reviewed ASEAN's performance across the 17 UN SDG's as per the SDG Goals report 2024. Its performance is at par with the world average or better on most indicators barring affordable and clean energy, life on land, life below water, industry/innovation and infrastructure, sustainable cities and communities, responsible production and consumption and climate action. In absolute terms its SDG performance is below par, which is the case with most other countries. Particularly, for climate change its performance is regressive, which confirms the weakness among middle-income countries in fighting climate change and taking concrete actions.

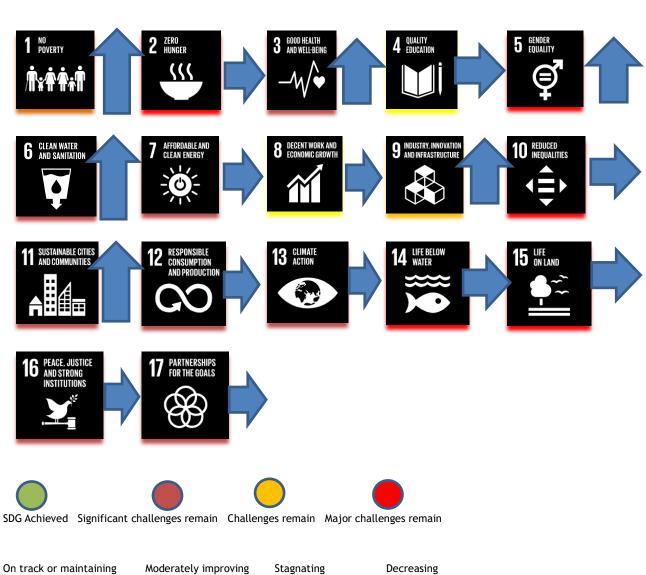
Snapshot of SDG progress in South East Asia, 2023

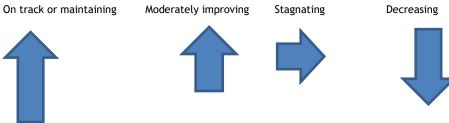


Source: UNSDG Report 2024

SDG indicators for Malaysia - SDG dashboard and trends: 40% of targets are on track, 30% limited progress and 30% worsening

SDG Index Rank: SDG Index Score: Spillover Score: 83.24
79/166 69.32







Annexure 2

Materiality Matrix ASEAN

	pect	Importance to Stakeholders	Explanation	Importance to Business	Explanation
1)	Per capita Energy Consumption	Major	Growing per capita income, above average GDP growth, increased demand from data centers and electronics use, Rising electrification	Significant	Critical growth enabler for manufacturing and exports
2)	Per capita emissions	Significant	High share of fossil fuel in country energy mix	Significant	Mandatory disclosure regulations are on anvil, carbon tax may be introduced
3)	Air pollution	Major	Large producer of oil and gas with high methane intensity, traffic congestion in cities poses health risks	Moderate	Captured through satellite images, relatively better than South Asia but inferior than EU/US
4)	Deforestation and Forest cover	Major	Land and land use change for agriculture	Moderate	Improved policy measures and penalties in the regulations
5)	Waste and Waste management	Significant	Palm oil and plastic waste, municipal solid waste are big	Moderate	Use of circular economy, waste management and waste to energy projects
6)	Fossil fuel subsidies	Major	Political and social compulsions	Moderate	Legacy situation is changing, Shift in energy source to low carbon is slowly taking place
7)	Energy transition	Major	Legacy high share of coal and natural gas in the energy system, per capita energy consumption less than world average and still rising	Significant	Need to expedite transition to renewables, hybrids and EVs to avoid potential carbon liabilities and stranded assets risk
8)	Carbon Pricing	Significant	Barring one country in ASEAN no direct carbon tax	Moderate	Voluntary adoption of internal carbon price by several companies to reduce future risk from carbon tax liabilities and stranded assets, possible use of high quality carbon credits
9)	Carbon Offsets	Moderate	No carbon tax except Singapore, Voluntary carbon markets operative in most ASEAN markets	Significant	Carbon credit prices are an implied indicator of carbon pricing in the absence of carbon tax but remains underdeveloped
) New technologies	Moderate	Nature based and Tech based Carbon Capture and Storage, Green Hydrogen options being explored	Major	Scalability and commercial pricing in the new technologies is missing and may not materialize until early 2030s
) Physical risks	Major	Flooding and tropical cyclones main environmental Risk, impacting insurance industry	Major	SME's particularly impacted, also indirectly through supply chain bottlenecks, Real Estate/Banks carry some risk as well

Source: World Bank

Scale: Moderate → Major → Significant



Annexure 3

Materiality Matrix Malaysia

Aspe	ct	Importance to Stakeholders	Explanation	Importance to Business	Explanation
1)	Per capita Energy Consumption	Major	Growing ownership of electronic products	Significant	Critical growth enabler for manufacturing and exports
2)	Per capita emissions	Significant	High share of fossil fuel in country energy mix	Significant	Mandatory disclosure as per Bursa and SC
3)	Methane leaks	Major	Large producer of oil and gas	Moderate	Captured through satellite images
4)	Air pollution	Major	Car ownership is high	Moderate	Technology shift needed
5)	Deforestation and Forest cover	Significant	Palm oil is big industry	Moderate	RSPO and other certifications add cost
6)	Waste and Waste management	Major	Plastics, Palm oil, Industrial waste	Moderate	Need circular economy model, additional cost
7)	Fossil fuel subsidies	Major	Subsidized fuel reduces cost of ownership	Significant	Will expedite transition to hybrids and EVs
8)	Energy transition	Significant	Very low share of Renewables in energy	Moderate	Need to spend capex, allocate more capital to RE capacity build up
9)	Carbon Pricing	Moderate	No carbon tax	Significant	Internal carbon pricing in lieu of carbon tax
10)	Carbon Offsets	Moderate	Nature based and Carbon Capture and Storage options being explored	Major	Keen to invest but high quality supply at reasonable price is not available
11)	Climate Disasters	Major	Flooding main environmental Risk, impacting insurance industry	Major	SME's particularly impacted, also indirectly through supply chain bottlenecks

Source: World Bank



Annexure 4: Energy Trilemma Score Methodology

In addition to an overall ranking and the individual rankings for each Trilemma dimension, countries are also assigned a set of dimension grades from A (highest) to D (lowest). Each letter reflects one dimension of the Energy Trilemma: the first letter refers to Energy Security; the second letter to Energy Equity; and the third letter to Environmental Sustainability. The mean and standard deviation of the scores in each dimension is calculated, and balance grades for each dimension are then assigned using bands based on the mean and standard deviation. High performance across all three dimensions is awarded 'AAA'. Sets of grades such as 'ABC' or 'CBD', highlight the balance or imbalance across a country's energy performance. An imbalance in energy performance suggests current or future challenges in the country's energy policy.

†Energy Security measures a nation's capacity to meet current and future energy demand reliably and to withstand and bounce back swiftly from system shocks with minimal disruption to supplies. This dimension covers the effectiveness of management of domestic and external energy sources, as well as the reliability and resilience of energy infrastructure.

Energy Equity assesses a country's ability to provide universal access to reliable, affordable, and abundant energy for domestic and commercial use. This dimension captures basic access to electricity and clean cooking fuels and technologies, access to prosperity-enabling levels of energy consumption, and affordability of electricity, gas, and fuel.

Environmental Sustainability focuses on elements that enable countries to develop and implement energy policy effectively and to achieve energy goals. This dimension describes the underlying macroeconomic and governance conditions, the strength and stability of the national economy and government, the country's attractiveness to investors, and the country's capacity for innovation.



MIBG coverage ESG tear sheets



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Materials													
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ICON OFFShore													
Bumi Armada BAB MK BUY 0.54 0.68 51													
Plantations	Bumi Armada	BAB MK		0.54	0.68	51							
IOI Corp. IOI MK		VEB MK	BUY	0.19	0.32	51							
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IJM MK						69							
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Tambun Indah Land TILB MK BUY 0 92 1 24 46													
	Tambun Indah Land	TILB MK	BUY	0.92	1.24	46							
Cahya Mata Sarawak CMS MK BUY 1.29 1.60 21 Pintaras Jaya Bhd PINT MK HOLD 1.51 1.64 20	•												



Technology								
CTOS Digital Berhad	CTOS MK	BUY	1.28	1.65	69			
Inari Amertron	INRI MK	HOLD	2.94	3.30	69			
V.S. Industry	VSI MK	BUY	1.08	1.28	69			
Greatech Technology	GREATEC MK	BUY	2.03	3.25	66			
ITMAX System Bhd	ITMAX MK	BUY	3.45	4.40	66			
My EG Services	MYEG MK	BUY	0.88	1.68	66			
Frontken Corp.	FRCB MK	BUY	3.99	4.95	65			
Aurelius Technologies	ATECH MK	BUY	2.88	4.02	63			
ViTrox Corp	VITRO MK	SELL	3.41	3.40	60			
Ramssol Group Bhd	RAMSSOL MK	BUY	0.72	1.00	53			
SAM Eng & Equipment	SEQB MK	BUY	4.28	5.71	44			
Telecommunications								
Telekom Malaysia	T MK	BUY	6.36	7.50	65			
Axiata Group	AXIATA MK	BUY	2.27	3.20	61			
CelcomDigi	CDB MK	BUY	3.34	4.50	57			
Maxis	MAXIS MK	HOLD	3.57	3.70	40			
TIME dotCom	TDC MK	HOLD	4.77	5.10	27			
Transport & logistics								
Westports Holdings	WPRTS MK	BUY	4.40	5.38	70			
MISC Bhd	MISC MK	HOLD	7.55	8.09	67			
Capital A	CAPITALA MK	HOLD	1.00	1.00	59			
AirAsia X Bhd	AAX MK	BUY	1.94	2.71	57			
Swift Haulage	SWIFT MK	HOLD	0.45	0.49	55			
Utilities								
Ranhill Utilities	RAHH MK	SELL	1.38	0.90	64			
Tenaga Nasional	TNB MK	HOLD	14.38	14.00	64			
Mega First Corp.	MFCB MK	HOLD	4.26	4.80	60			
YTL Power	YTLP MK	BUY	3.15	4.70	58			
Petronas Gas	PTG MK	HOLD	17.66	18.00	57			
Gas Malaysia	GMB MK	HOLD	3.86	3.60	53			
Malakoff Corp.	MLK MK	HOLD	0.84	0.80	50			

Source: Bloomberg, Maybank IBG Research

Bermaz Auto Berhad (BAUTO MK)

AUTOMOTIVE

	Quantitative Parameters (Score: 53)					
	Particulars	Unit	FY22	FY23	FY24	SIME MK (FY24)
	Scope 1 emissions	tCO2e	573	913	1001	47,000
	Scope 2 emissions	tCO2e	2878	3444	3790	121,000
	Total	tCO2e	3451	4357	4791	168,000
	Scope 3 emissions	tCO2e	3	2030	1944	NA
	Total	tCO2e	3454	6387	6735	168,000
	GHG intensity - Scope 1 & 2 (by revenue)	tCO2e/MYRm	1.5	1.2	1.2	2.5
Е	EV sales as % of total sales	%	<1	<1	<1	29 %
-	Energy consumption	GJ	22,169	30,369	33,421	1,646,224
	Energy intensity (by revenue)	GJ/ MYR'm	9.5	8.6	8.5	25.0
	RE as a % of electricity consumption	%	1.5%	3.3%	3.7%	1.6%
	Scheduled waste	Tonne	240.1	310.9	345.0	NA
	Waste diverted away from disposal	%	0.0%	0.0%	8.9%	NA
	Water consumption	M3	40,309	42,813	46,713	1,367,000
	Water intensity (by revenue)	M3/ MYR'm	17.3	12.1	11.9	20.4
	% of women in workforce	%	30.4%	30.2%	30.3%	25.0%
	% of women in top management	%	25.0%	21.7%	21.7%	15.0%
S	Community investment	MYR'm	0.9	0.6	1.3	30.0
	Lost time incident rate	Rate	0.0	0.0	0.5	1.05
	Avg training hours	Hrs/emplyee	7	18	11	13
	CEO salary as % of reported net profit	%	2.2%	1.1%	1.1%	0.2%
G	Board salary as % of reported net profit	%	5.8%	3.0%	2.9%	0.3%
	Independent directors on the Board	%	57.0%	57.0%	57.1%	58.0%
	Female directors on the Board	%	29.0%	29.0%	28.6%	25.0%
	Total corruption and bribery cases	number	0	0	0	2

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 Risk committee?

Yes - BAuto has a Board level Sustainability Committee (SC), with senior management responsible for guiding the group's sustainability efforts, ensuring implementation excellence, progress tracking, and adherence to sustainability standards.

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

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

BAuto focuses on compliance with Bursa Securities' Enhanced Sustainability Reporting Framework, including TCFD disclosures.

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

Yes - Business travel and employee commute.

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

Key initiatives include (i) advancing eco-friendly vehicles, electrification, and cleaner fuels across its operations, supply chain, and product portfolio; (ii) installing rainwater harvesting systems, with filtered rainwater reused, saving up to 30% of daily water for car washing; and (iii) establishing protocols for responsible storage, retrieval, and recycling of EV batteries.

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

BAuto is committed to achieving net-zero carbon emissions by 2050, via carbon reduction through green technology, renewable energy, and sustainable practices across its life cycle and operational footprint.

Target (Score: 40)					
Particulars	Target	Achieved			
EV to contribute 10% of overall sales by 2030	10%	<1%			
3% reductionin CO2 emissions by 2030 (from FY24 levels)	-3%	N/A			
3% reduction in waste by 2030 (from FY24 levels)	-3%	N/A			
Net zero by 2050	N/A	N/A			
Achieve zero major accidents	0	N/A			
Impact					
NA					
Overall Score: 57					
As per our ESG matrix, BAUTO has an overall score of 57.					

ESG score	Weights	Scores	Final Score
Quantitative	50%	53	27
Qualitative	25%	83	21
Target	25%	40	10
Total			57

As per our ESG assessment, BAUTO excels in its "S" and "G" initiatives, with strong CSR efforts and a corporate governance framework. Its "E" metrics have also improved. Key sustainability risk remains its limited EV offerings, expected to strengthen through its recent partnership with XPeng. BAUTO's overall ESG score is 57, above the industry average, in our view (average ESG rating = 50; refer to App I for our ESG Assessment Scoring).

MBM Resources (MBM MK)

AUTOMOTIVE

	Quantitative Parameters (Score: 26)					
						BAUTO MK
	Particulars	Unit	FY21	FY22	FY23	(FY24)
	Scope 1 emissions	tCO2e	N/A	N/A	1,717	1,001
	Scope 2 emissions	tCO2e	N/A	N/A	9,612	3,790
	Total	tCO2e	N/A	N/A	11,329	4,791
	Scope 3 emissions	tCO2e	N/A	N/A	N/A	1,944
	Total	tCO2e	N/A	N/A	11,329	6,735
	GHG intensity (by revenue)	tCO2e/MYR'm	N/A	N/A	4.7	1.2
Ε	EV sales as % of total	%	N/A	N/A	N/A	<1%
-	Energy consumption	GJ	N/A	N/A	86,880	33,421
	Energy intensity (by revenue)	GJ/ MYR'm	N/A	N/A	36.0	8.5
	RE as a % of electricity consumption	%	N/A	N/A	5.0%	3.7%
	Total scheduled waste	Tonnes	112.3	151.4	208.1	345.0
	Waste diverted away from disposal	%	95.6%	97.3%	96.2%	8.9%
	Water consumption	M3	116,981	134,315	142,824	46,713
	Water intensity (by revenue)	M3/MYR'm	76.5	58.2	59.1	11.9
	% of women in workforce	%	28.0%	28.5%	25.6%	30.3%
	% of women in top management	%	N/A	N/A	23.0%	21.7%
S	Community investment	MYR'k	300.0	N/A	112.5	1,296.5
	Lost time incident rate	Rate	N/A	N/A	0.3	0.5
	Average training hours	Hrs/employee	N/A	N/A	13.9	11.1
	CEO salary as % of reported net profit	%	NA	NA	NA	1.1%
	Board salary as % of reported net profit	%	1.3%	0.8%	0.8%	2.9%
G	Independent directors on the Board	%	33.3%	28.6%	28.6%	57.1%
	Female directors on the Board	%	16.7%	28.6%	28.6%	28.6%
	Total corruption and bribery cases	number	0	0	0	0

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 The responsibility of setting the group's sustainability strategies and initiatives comprising of ESG matters are oversee by the Risk Management and Sustainability Committee.
- b) Is the senior management salary linked to fulfiling ESG targets?
- c) Is the company a signatory of or adheres to the UN Global Compact (UNGC) Initiative or adopt TCFD framework? MBM plans to report following the TCFD guidelines starting in FY24E.
- d) Does the company have a mechanism to capture Scope 3 emissions which parameters are captured?
- No, but it has plans to introduce Scope 3 Carbon Emission reporting (category 6 and 7) in its disclosure beginning FY24E.
- e) What are the 2-3 key carbon mitigation/water/waste management strategies adopted by the company?
- Key initiatives include (i) transitioning to renewable energy with solar panel installations; (ii) replacing diesel forklifts with EVs; (iii) installing water-saving taps and recycling treated water for production, and implement rainwater harvesting systems; (iv) engage licensed waste disposal vendors and recycling EVA and metal scraps.
- f) Does carbon offset form part of the net zero/carbon neutrality target of the company?
- No, MBM has yet to establish a carbon neutral/net zero aspiration.

Target (Score: 50)					
Particulars	Target	Achieved			
Reduce electricity consumption intensity from by 5-20% by end 2025 (vs 2021)	5-25%	N/A			
Reduce water consumption intensity by 4-20%	4-20%	N/A			
Injury frequency rate target of 0-5 across different subsidiaries	0-5	9			
Score >70% in Employee Satisfaction Survey	>70%	>70%			
Impact					
NA					
Overall Score: 34					
As per our ESG matrix, MBM has an overall score of 34.					

ESG score	Weights	Scores	Final Score
Quantitative	50%	26	13
Qualitative	25%	33	8
Target	25%	50	13
Total			34

As per our ESG assessment, MBM has shown progress in its sustainability reporting (work in progress) and has established measurable short-term targets. However, we believe it lacks a unified ESG framework and a carbon neutral/net zero goal. MBM's overall ESG score is 34, below average, in our view (average ESG rating = 50; refer to App I for our ESG Assessment Scoring).



Tan Chong Motor (TCM MK)

AUTOMOTIVE

	Quantitative Parameters (Score: 5)					
						BAUTO MK
	Particulars	Unit	FY21	FY22	FY23	(FY24)
	Scope 1 emissions	tCO2e	N/A	N/A	N/A	1,001
	Scope 2 emissions	tCO2e	N/A	N/A	N/A	3,790
	Total	tCO2e	2,719	N/A	N/A	4,791
	Scope 3 emissions	tCO2e	N/A	N/A	N/A	1,944
	Total	tCO2e	2,719	N/A	N/A	6,735
	Carbon emission intensity (by unit production)	tCO2e/unit	0.3	0.7	N/A	0.3
Е	EV sales as % of total	%	N/A	N/A	N/A	<1
_	Energy consumption	MWh	N/A	N/A	54,810	9,284
	Energy intensity (by unit production)	MWh/unit	1.4	1.1	4.4	0.4
	Total RE harnessed	MWh	1228.9	1193.2	1091.7	339.4
	Scheduled waste	Tonne	526.7	850.0	185.0	345.0
	Scheduled waste diverted away from disposal	%	72 %	80%	95%	9%
	Water consumption	M3	78,349	85,900	422,220	46,713
	Water intensity (by revenue)	M3/ MYR'm	30.9	28.1	166.7	11.9
	% of women in workforce	%	27.6%	26.5%	25.7%	30.3%
	% of women in management level	%	38.1%	37.9%	34.7%	21.7%
S	Community investment	MYR' k	N/A	N/A	26.2	1296.5
	Lost time incident rate	rate	0.49	0.57	0.60	0.48
	Average training hours	hrs/employee	9.8	5.9	7.3	11.1
	CEO salary as % of reported net profit	%	loss	loss	loss	1.1%
	Board salary as % of reported net profit	%	loss	loss	loss	2.9%
G	Independent directors on the Board	%	57%	43%	57%	57.1%
	Female directors on the Board	%	14%	14%	14%	28.6%
	Total corruption and bribery case	number	0	0	0	0

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, TCM has an ESG policy overseen by a combined Board Risk Management & Sustainability Committee, integrating sustainability governance within its risk management framework to drive and monitor ESG initiatives across the organization.
- b) Is the senior management salary linked to fulfilling ESG targets? $\it No.$
- c) Is the company a signatory of or adheres to the UN Global Compact (UNGC) Initiative or adopt TCFD framework?
- TCM supports the UN Sustainable Development Goals (UNSDGs) and is working toward aligning its climate-related disclosures with the Task Force on Climate-Related Financial Disclosures (TCFD) recommendations.
- 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?
- Key initiatives include: (i) carbon mitigation through renewable energy investments, such as rooftop and floating solar installations, and electrifying equipment; (ii) water conservation via recycling, rainwater harvesting, and leak detection; and (iii) waste management focused on regulatory compliance, e-waste partnerships, and digitalization to cut paper use.
- f) Does carbon offset form part of the net zero/carbon neutrality target of the company?
- No, but TCM focuses on emissions reduction through energy conservation, renewable energy investments, electrification of operations, and promoting EVs.

Target (Score: 50)						
Particulars	Target	Achieved				
Carbon emissions reduction target	N/A	N/A				
To generate solar power of 1,141,380 kWh	1,141,380 kWh	1,091,668 kWh				
Total waste diverted from disposal ≥ 95%	95%	95%				
15% reduction in severity rate from previous year	-15%	-20%				
Impact						

NA

Overall Score: 32

As per our ESG matrix, TCM has an overall score of 32.

ESG score	Weights	Scores	Final Score
Quantitative	50%	5	3
Qualitative	25%	67	17
Target	25%	50	13
Total			32

As per our ESG assessment, TCM's ESG scores were impacted by a lack of ESG disclosure and deterioration in certain parameters in FY23, likely due to inefficiencies arising from the cessation of MG sales in VN. TCM's overall ESG score is **32**, **below its industry's average**, in our view (average ESG rating = 50; refer to App I for our ESG Assessment Scoring).



Allianz Malaysia (ALLZ MK)

BANKING, FINANCIAL SERVICES & INSURANCE

	Quantitative Parameters (Score: 39)					
	Particulars	Unit	2020	2021	2022	2023
	Scope 1 emissions	tonnes CO2e	651.5	384.0	777.2	34.1
	Scope 2 emissions	tonnes CO2e	0.0	0.0	0.0	0.0
	Total	tonnes CO2e	651.5	384.0	777.2	34.1
	Scope 3 emissions	tonnes CO2e	789.9	470.7	942.6	1,477.8
Е		tonnes CO2e	1,441.4	854.8	1,719.8	1,511.9
_	GHG intensity	tCO2e/emp	0.8	0.4	0.8	0.8
	Energy consumption intensity	MJ/empl	7,648	5,487	6,167	6,085
	Water consumption intensity	m3/empl	24.1	18.8	24.1	15.5
	Paper consumption intensity	g/policy	18.8	8.5	6.0	8.4
	Recycled waste	%	44%	69%	62%	49%
	% of women in workforce	%	66.3%	66.4%	66.4%	67.8%
	% of women in management roles	%	60.6%	56.9%	57.4%	58.9%
	Attrition rate	%	8.8%	7.6%	10.4%	9.5%
S	Average training hours	hours	5.2	42.7	40.8	95.7
3	Substantiated complaints re human rights violation	ns cases	na	0	0	0
	Substantiated complaints concerning breaches of	cases	na	0	0	2
	cust. privacy & losses of cust. data					
	GWP of sustainable solutions	MYR'm	134.0	138.6	NA	NA
	MD/CEO salary as % of reported net profit	%	1.4%	1.7%	0.9%	0.7%
	Board salary as % of reported net profit	%	1.7%	1.1%	0.3%	0.4%
G	Independent directors on the Board	%	67%	80%	75%	71 %
	Profits distributed to shareholders %	of net profit	42.4%	50.0%	52.6%	52.2%
	Female directors on the Board	%	33%	38%	25%	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 Risk committee? Yes, there is a separate ESG Board chaired by the CEO.
- 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 targets are cascaded to the CEO direct reports.
- c) Is the company a signatory of the United Nations Environment Programme Finance Initiative Principles for Sustainable Insurance? Yes, it is.
- d) Does the company embed ESG considerations into its underwriting processes?
- Yes, it does, embracing the Allianz Standard for Reputational Risk Management (AS RRIM) which is applied globally by the Allianz SE Group.
- e) Does the company have a firm plans/deadline for exiting business/investments in the coal sector?

The group has stopped financing coal-based business models since 2016. It does not invest in coal-based infrastructure. The group targets to reduce exposure to 15% by 2025, 5% globally and 10% in Asia by 2030 and 0% by 2040.

f) Does the company quantify its investment and insurance portfolio GHG emissions?

No. The company is working to establish methodologies to quantify the GHG emissions from investment and insurance portfolios

Target (Score: 100)		
Particulars	Target	Achieved
50% GHG emissions reduction in own operations by 2025	50%	NA
30% reduction in emission intensity in proprietary investment portfolio for listed equity and corporate bonds by 2025, based on 2019 baseline, and net zero GHG emissions in the said investment portfolio by 2050.	30%	NA
Impact		

NA Overall Score: 78

As per our ESG matrix, Allianz (ALLZ MK) has an overall score of 78.

ESG score	Weights	Scores	Final Score
Quantitative	50%	72	36
Qualitative	25%	67	17
Target	25%	100	25
Total			78

Allianz is a subsidiary of, and therefore abides by, Allianz SE Group's industry leading ESG practices. Allianz's score of 78 is currently above average on our ESG rating (average ESG rating = 50; refer to Appendix I for our ESG Assessment Scoring).



RCE Capital Bhd (RCE MK)

BANKING, FINANCIAL SERVICES & INSURANCE

	Quantitative Parameters (Score: 50)					
						ACSM MK
	Particulars	Unit	2022	2023	2024	(FY3/24)
	Scope 1 emissions	tCO2e	16	19	22	200
	Scope 2 emissions	tCO2e	150	155	152	2,317
	Total	tCO2e	166	174	174	2,517
	Scope 3 emissions	tCO2e	N/A	N/A	377	N/A
	Total	tCO2e	166	174	551	2,517
Ε	Scope 1 & 2 emissions per employee	tCO2e	0.94	0.90	0.85	0.81
	Energy consumption	GJ	1,206.6	1,300.8	1,339.9	N/A
	Water consumption	m3	N/A	N/A	267	19,457
	Paper consumption per employee	'000 pieces	3.7	3.7	5.4	N/A
	Waste generated	kg	N/A	N/A	N/A	N/A
	Waste diverted from disposal	kg	322.4	796.7	1,010.7	N/A
	% of women in workforce	%	73%	74%	74%	66%
	% of women in managerial roles	%	64%	66%	69 %	39%
	Sales team responsible financing training rate	%	100.0%	100.0%	97.2%	N/A
S	Responsible financing articles posted on social media	posts	7	19	7	N/A
	Complaints received & resolved	number	7	6	8	N/A
	Employee turnover rate	%	17.5	16.0	12.8	18.2
	Employee training per employee	hours	24	35	24	21
	Incidents of non-compliance	incidents	1	3	-	-
	Board salary as % of core net profit	%	0.7%	0.7%	0.7%	1.1%
G	Independent directors on the Board	%	50%	50%	50%	56%
	% of profits returned to shareholders	%	57%	158%	79 %	34%
	Female directors on the Board	%	11%	13%	25%	44%

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. RCE has an ESG policy in place. It has a Sustainability Working Committee which reports to the Sustainability Management Committee which in turn, reports directly 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? Yes. Employee commute.
- f) What are the 2-3 key carbon mitigation/water/waste management strategies adopted by the company? Switching off all office lights and equipment during breaks and before leaving office, retro-fitting LED lighting, recycling paper and avoiding unnecessary printing.
- g) Does carbon offset form part of the net zero/carbon neutrality target of the company? No, as RCE is not a major polluter.

Target (Score: 100)					
5 , ,					
Particulars	Target	Achieved			
Reduce GHG emissions/employee by FY3/24E	1.0	0.9			
Women representation on board by FY3/25E	30%	NA			
Impact					
NA					
Overall Score: 75					
As per our ESG matrix, RCE Capital (RCE MK) has an overall score of 75.					

ESG score	Weights	Scores	Final Score
Quantitative	50%	50	25
Qualitative	25%	100	25
Target	25%	100	25
Total			75

As per our ESG assessment, RCE has an established framework, internal policies, and tangible mid/long-term targets. RCE's overall ESG score is 75, 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 (PBK MK)

BANKING, FINANCIAL SERVICES & INSURANCE

	Quantitative parameters (Score: 45)					
						CIMB MK
	Particulars	Unit	2021	2022	2023	(FY23)
	Scope 1 emissions	tonnes CO2e	551	2,460	2,891	3,077
	Scope 2 emissions	tonnes CO2e	61,318	61,211	61,172	74,005
	Total	tonnes CO2e	61,869	63,671	64,063	77,082
	Scope 3 emissions	tonnes CO2e	1,041	26,236	23,160	5,245
	Total	tonnes CO2e	62,910	89,907	87,223	82,327
F	GHG intensity (Scope 1 and 2)	kg CO2e/emp	3.2	4.7	4.4	2,410
-	Financed emissions	kt CO2e	5,689	5,912	6,039	NA
	Exposure to ESG sensitive sectors	% of loan book	~1%	~1%	~1%	4.8%
	Electricity consumption	MWh	95,388	99,182	96,032	97,164
	Water consumption	m3	404,197	460,193	479,193	497,861
	Petrol consumption	litres	231,258	327,685	326,831	NA
	Solid waste recycled	tonnes	na	na	602	84
	Net promoter score	score	98	na	61	69
	Substantiated complaints re human rights vio		0	0	0	0
	Substantiated complaints re customer privacy	1				
S	breaches and customer data loss	cases	0	0	0	na
	% of women in workforce	%	59.5%	59.9%	60.2%	57.0%
	% of women in management roles	%	48.6%	48.3%	48.8%	48.2%
	Attrition rate	%	5.1%	8.2%	9.5%	13.8%
	MD/CEO salary as % of reported net profit	%	0.72%	0.76%	0.79%	0.14%
	Board salary as % of reported net profit	%	0.51%	0.48%	0.12%	0.09%
G	Independent directors on the Board	%	56%	63%	56%	78%
	Profits distributed to shareholders	% of net profit	52.2%	53.9%	55.5%	65.7%
	Female directors on the Board	%	33%	38%	44%	33%

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, 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?

Yes. Integrated into the long-term strategic plans and performance assessment of the C-suites and senior management to uphold sustainability practices.

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

Yes. Its accounts are prepared in line with Bursa's Sustainability Reporting Guide, the Global Reporting Initiative (GRI) Standard and the Task Force on Climate-Related Financial Disclosures (TCFD).

d) Has the bank established its financed emissions baseline?

Yes. In 2023, loans and/or financing used to estimate its financed emissions, covered 81% of total loans and/or financing in Malaysia and overseas operations.

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 "no deforestation, no peat, no exploitation (NDPE)" policies in place?

Yes. This is incorporated into its ESG lending exclusion list.

Target (Score: 100)		
Particulars	Target	Achieved
To mobilise MYR15b in affordable home financing by 2050.	MYR15b	MYR7.6b
To mobilise MYR25b in energy efficient vehicles financing by 2025.	MYR25b	MYR38.4b
To mbilize MYR100b in sustainable finance from 2020, by 2030.	MYR100b	MYR53.9b
To maintain =>45% women in senior management	=>45%	49%
To achieve carbon neutral position in GHG emissions by 2030, net zero GHG emission by 2050	NA	NA
Impact		
NA		
Overall score: 73		
As per our ESG matrix, Public Bank (PBK MK) has an overall score of 73.		

ESG score	Weights	Scores	Final Score
Quantitative	50%	45	23
Qualitative	25%	100	25
Target	25%	100	25
Total			73

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 73, which is above average on our ESG rating (average ESG rating = 50; refer to Appendix I for our ESG Assessment Scoring).



Hong Leong Bank (HLBK MK)

BANKING, FINANCIAL SERVICES & INSURANCE

Quantitative Parameters (Score: 43)							
					PBK MK		
Particulars	Unit	FYE6/22	FYE6/23	FYE6/24	(FY23)		
Scope 1 emissions	tonnes CO2e	110	141	121	2,891		
Scope 2 emissions	tonnes CO2e	28,447	27,614	26,278	61,172		
Total	tonnes CO2e	28,557	27,755	26,399	64,063		
Scope 3 emissions	tonnes CO2e	9,357	12,336	13,824	23,160		
Total	tonnes CO2e	37,914	40,091	40,223	87,223		
GHG intensity (Scope 1 and 2)	kg CO2e/emp	4,735	4,885	4,914	4,400		
Financed emissions	kt CO2e	NA	NA	NA	6,039		
Exposure to ESG sensitive sectors	% of loan book	NA	NA	5.0%	~1%		
Electricity consumption	MWh	39,923	38,626	36,819	96,032		
Water consumption	m3	178,710	198,152	228,039	479,193		
Petrol consumption	litres	54,561	67,404	69,454	326,831		
Paper consumption	kg	156,466	173,697	150,176	NA		
Net promoter score	%	na	na	na	61		
Substantiated complaints re human rights viola	tions cases	0	0	0	0		
Substantiated complaints re customer privacy							
breaches and customer data loss	cases	0	0	0	0		
Women in workforce	%	62.6%	63.3%	64.0%	60.2%		
Women in senior management roles	%	40.5%	41.4%	41.9%	48.8%		
Attrition rate	%	19.7%	21.7%	19.8%	9.5%		
MD/CEO salary as % of reported net profit	%	0.55%	0.87%	0.15%	0.79%		
Board salary as % of reported net profit	%	0.04%	0.04%	0.04%	0.12%		
Independent directors on the Board	%	67%	63%	63%	56%		
Profits distributed to shareholders	% of net profit	34.2%	31.7%	33.2%	55.5%		
Female directors on the Board	%	33%	38%	38%	44%		
	Scope 2 emissions Total Scope 3 emissions Total GHG intensity (Scope 1 and 2) Financed emissions Exposure to ESG sensitive sectors Electricity consumption Water consumption Petrol consumption Paper consumption Net promoter score Substantiated complaints re human rights viola Substantiated complaints re customer privacy breaches and customer data loss Women in workforce Women in senior management roles Attrition rate MD/CEO salary as % of reported net profit Board salary as % of reported net profit Independent directors on the Board Profits distributed to shareholders	Scope 1 emissions tonnes CO2e Scope 2 emissions tonnes CO2e Total tonnes CO2e Scope 3 emissions tonnes CO2e Total tonnes CO2e GHG intensity (Scope 1 and 2) kg CO2e/emp Financed emissions kt CO2e Exposure to ESG sensitive sectors % of loan book Electricity consumption MWh Water consumption m3 Petrol consumption litres Paper consumption kg Net promoter score % Substantiated complaints re human rights violations cases Substantiated complaints re customer privacy breaches and customer data loss cases Women in workforce % Women in senior management roles % Attrition rate % MD/CEO salary as % of reported net profit % Board salary as % of reported net profit % Independent directors on the Board % Profits distributed to shareholders % of net profit	Scope 1 emissionstonnes CO2e110Scope 2 emissionstonnes CO2e28,447Totaltonnes CO2e28,557Scope 3 emissionstonnes CO2e9,357Totaltonnes CO2e37,914GHG intensity (Scope 1 and 2)kg CO2e/emp4,735Financed emissionskt CO2eNAExposure to ESG sensitive sectors% of loan bookNAElectricity consumptionMWh39,923Water consumptionm3178,710Petrol consumptionkg156,466Net promoter score%naSubstantiated complaints re human rights violationscases0Substantiated complaints re customer privacybreaches and customer data losscases0Women in workforce%62.6%Women in senior management roles%40.5%Attrition rate%19.7%MD/CEO salary as % of reported net profit%0.55%Board salary as % of reported net profit%0.04%Independent directors on the Board%of net profit34.2%	Scope 1 emissionstonnes CO2e110141Scope 2 emissionstonnes CO2e28,44727,614Totaltonnes CO2e28,55727,755Scope 3 emissionstonnes CO2e9,35712,336Totaltonnes CO2e37,91440,091GHG intensity (Scope 1 and 2)kg CO2e/emp4,7354,885Financed emissionskt CO2eNANAExposure to ESG sensitive sectors% of loan bookNANAElectricity consumptionMWh39,92338,626Water consumptionm3178,710198,152Petrol consumptionlitres54,56167,404Paper consumptionkg156,466173,697Net promoter score%nanaSubstantiated complaints re human rights violationscases00Substantiated complaints re customer privacybreaches and customer data losscases00Women in workforce%62.6%63.3%Women in senior management roles%40.5%41.4%Attrition rate%19.7%21.7%MD/CEO salary as % of reported net profit%0.55%0.87%Board salary as % of reported net profit%0.04%0.04%Independent directors on the Board%of net profit34.2%31.7%	Scope 1 emissions tonnes CO2e 110 141 121 Scope 2 emissions tonnes CO2e 28,447 27,614 26,278 Total tonnes CO2e 28,557 27,755 26,399 Scope 3 emissions tonnes CO2e 9,357 12,336 13,824 Total tonnes CO2e 37,914 40,091 40,223 GHG intensity (Scope 1 and 2) kg CO2e/emp 4,735 4,885 4,914 Financed emissions kt CO2e NA NA NA Exposure to ESG sensitive sectors % of loan book NA NA NA Exposure to ESG sensitive sectors % of loan book NA NA NA Electricity consumption MWh 39,923 38,626 36,819 Water consumption m3 178,710 198,152 228,039 Petrol consumption kg 156,466 67,404 69,454 Apper consumption kg 156,466 173,697 150,176 Net promoter score %		

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. 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? Practice 4.4
- Yes. The 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 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?
- The bank has disclosed financed emissions from auto loans and mortgages, and will establish a baseline for other assets.
- e) Does the bank have a firm deadline for exiting the financing of the coal sector?
- Ceased financing of greenfield coal-fired power plants from Jul 2021 and to cease new financing of all coal-fired power plants from Jul 2026.
- f) 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 June 2026 from 2019 base-line	15-25%	29%		
To finance MYR4b renewable energy projects by FY25	MYR4b	MYR3.5b		
To finance MYR14.4b green & affordable mortgages by FY24	MYR14.4b	MYR14.6b		
To finance MYR0.96b green auto loans by FY24	MYR0.96b	MYR1.2b		
Impact				
NA				

Overall Score: 71

As per our ESG matrix, Hong Leong Bank (HLBK MK) has an overall score of 71.

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

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. HL Bank's overall ESG score is 71, 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.



Alliance Bank (ABMB MK)

BANKING, FINANCIAL SERVICES & INSURANCE

	Quantitative Parameters (Score: 41)								
	Particulars	Unit	FYE3/22	FYE3/23	FYE3/24	PBK MK (FY23)			
	Scope 1 emissions Scope 2 emissions	tonnes CO2e tonnes CO2e	24 10,406	32 9,822	26 9,766	2,891 61,172			
	Total Scope 3 emissions	tonnes CO2e	10,430 577	9,854 686	9,792 681	64,063 23,160			
	Total	tonnes CO2e	11,007	10,541	10,472	87,223			
Ε	GHG intensity (Scope 1 and 2) Financed emissions	kg CO2e/emp tonnes CO2e	3.1 na	2.8 na	2.6 na	4,400 6,039			
	Exposure to ESG sensitive sectors Electricity consumption	% of loan book MWh	na 14,627	na 13,830	5.6% 13,807	~1% 96,032			
	Water consumption Petrol consumption	m3 litres	na 6,366	na 11,347	25,200 8,042	479,193 326,831			
	Printing volume	m copies	28.90	30.95	34.09	NA			
	Net promoter score Substantiated complaints re human rights violated to the complaints of the complain	% tion cases	28 0	33 0	33 0	61 0			
S	Substantiated complaints re customer privacy breaches and customer data loss	cases	0	0	2	0			
	% of women in workforce % of women in senior management roles	% %	61.0% 24.0%	61.0% 19.0%	62.0% 21.0%	60.2% 48.8%			
	Attrition rate MD/CEO salary as % of reported net profit	<u>%</u>	17.0% 2.48%	21.0% 1.76%	15.0% 2.08%	9.5% 0.79%			
	Board salary as % of reported net profit	% %	0.90%	0.60%	0.72%	0.75%			
G	Independent directors on the Board	%	78%	78%	78%	56%			
	Profits distributed to shareholders Female directors on the Board	% of net profit %	25.0% 22%	50.0% 22%	50.0% 22%	55.5% 44%			

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, 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. The Board is assessed on whether it takes into account sustainability considerations when exercising its duties. For FY24, the balanced scorecard of Senior Management includes ESG-related KPIs on financing, investment, helping customers make the transition to adopt better sustainable practices, Greenhouse Gas (GHG) emissions reduction, and incorporating sustainable practices within internal policies and processes, where appropriate.
- c) Does the company follow TCFD framework for ESG reporting? Is it signatory to responsible banking initiative or other such initiatives?
- Yes. Its reporting standards and framework are aligned to Bursa Malaysia's Sustainability Reporting Guide and TCFD.
- d) Does the company capture Scope 3 emissions from financing activities?
- Yes. The bank has established its Scope 3 financed emissions baselines for 8 high-emitting sectors. Computed financed emissions as at 31 Dec 2022 was 1.04m tCO2e.
- e) Does the bank have a firm deadline for exiting the financing of the coal sector?
- The bank has no outstanding loans to the coal sector.
- f) Does the bank have no deforestation, no peat, no exploitation (NDPE) policies in place?

Has 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		
Achieve MYR15b in new sustainable banking business by FY27	MYR15b	MYR12.6b		
Ensure C5% of portfolio is <20% by FY30	<20%	31%		
Reduce emissions by 20% by FY27 against FY20 baseline	20%	18%		
Impact				
NA				
Overall Score: 70				
As per our ESG matrix, Alliance Bank (ABMB MK) has an overall score of 70.				

ESG score	Weights	Scores	Final Score
Quantitative	50%	41	20
Qualitative	25%	100	25
Target	25%	100	25
Total			70

ABMB's ESG disclosures have improved significantly over the past two years, and are more comprehensive than before. As a result, its ESG score has also risen dramatically from 52 in FY22 to 70 in FY24, comfortably above average on our ESG rating (average ESG rating = 50; refer to Appendix I for our ESG Assessment Scoring).



CIMB Group Holdings (CIMB MK)

BANKING, FINANCIAL SERVICES & INSURANCE

	Quantitative Parameters (Score: 38)							
	Particulars	Unit	2021	2022	2023	PBK MK (FY23)		
	Scope 1 emissions	tonnes CO2e	4,907	2,638	3,077	2,891		
	Scope 2 emissions	tonnes CO2e	87,301	86,336	74,005	61,172		
	Total	tonnes CO2e	92,208	88,974	77,082	64,063		
	Scope 3 emissions	tonnes CO2e	189	4,242	5,245	23,160		
	Total	tonnes CO2e	92,398	93,216	82,327	87,223		
Е	GHG intensity (Scope 1 and 2)	kg CO2e/emp	2,778	2,803	2,410	4,400		
-	Financed emissions	kt CO2e	NA	16,478	NA	6,039		
	Exposure to ESG sensitive sectors	% of loan book	7.2%	5.6%	4.8%	~1%		
	Electricity consumption	MWh	115,330	113,433	97,164	96,032		
	Water consumption	m3	550,709	400,488	497,861	479,193		
	Fuel consumption (transport)	Gj	65,364	24,684	29,514	NA		
	Solid waste recycled	tonnes	126	256	84	602		
	Net promoter score	score	54	74	69	61		
	Substantiated complaints re human rights viol	ation cases	na	0	0	0		
	Substantiated complaints re customer privacy							
S	breaches and customer data loss	cases	na	na	na	0		
	% of women in workforce	%	56.7%	56.8%	57.0%	60.2%		
	% of women in management roles	%	33.8%	47.7%	48.2%	48.8%		
	Attrition rate	%	14.3%	16.3%	13.8%	9.5%		
	MD/CEO salary as % of reported net profit	%	0.11%	0.14%	0.14%	0.79%		
	Board salary as % of reported net profit	%	0.13%	0.13%	0.09%	0.12%		
G	Independent directors on the Board	%	70%	80%	78%	56%		
	Profits distributed to shareholders	% of net profit	50.1%	50.5%	65.7%	55.5%		
	Female directors on the Board	%	30%	30%	33%	44%		

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, 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? Practice 4.4
- 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 aligns to Global Reporting Initiative Standards 2021, Task Force on Climate-related Financial Disclosures (TCFD) and the United Nations Environment Programme Finance Initiative Principles for Responsible Banking.
- d) Does the bank capture Scope 3 emissions from financing activities?
- Yes. As of end-2022, the group's financed emissions inventory covered 55% of the group's total financing and investment portfolios.
- e) Does the bank have a firm deadline for exiting the financing of the coal sector?
- Yes. Committed to no longer finance new coal-fired power plants and new thermal coal mines, and to phase out coal from its portfolio by 2040.
- f) Does the bank have a "no deforestation, no peat, no exploitation (NDPE)" policy in place?
- Yes, it does. Rolled out its NDPE commitment requirement to larger markets in 2022 and to smaller markets in 2023.

Target (Score: 100)		
Particulars	Target	Achieved
2024 sustainable finance target of MYR100b	MYR100b	MYR99.7b
25% reduction in GHG emissions (Scope 1 & 2) by 2024 from 2019 baseline, net zero by 2030	25%	26%
45% women in leadership in 2024	45%	38%
Impact		

NA Overall Score: 69

As per our ESG matrix, CIMB Group Holdings (CIMB MK) has an overall score of 69.

ESG score	Weights	Scores	Final Score
Quantitative	50%	38	19
Qualitative	25%	100	25
Target	25%	100	25
Total			69

CIMB has strong sustainability policies in place. Where we think there is room for improvement would be in reducing its Scope 1 & 2 emissions as well as its water/petrol consumption. CIMB's overall ESG score is 69, which is above average on our ESG rating (average ESG rating = 50; refer to Appendix I for our ESG Assessment Scoring).



Bursa Malaysia (BURSA MK)

BANKING, FINANCIAL SERVICES & INSURANCE

	Quantitative parameters (Score: 53)							
	Particulars	Unit	2019	2020	2021	2022	2023	SGX SP (FY23)
	Scope 1 GHG emissions	tCO2e	33	5	113	209	2409	30
	Scope 2 GHG emissions	tCO2e	6230	6309	5951	7219	6169	3568
	Total	tCO2e	6263	6314	6064	7428	8578	3598
	Scope 3 GHG emissions	tCO2e	64	3	1524	1554	1224	7061
Е	Total	tCO2e	6327	6317	7588	8983	9802	10659
-	GHG intensity (Scope 1)	tCO2e/m2	0.16	0.15	0.14	0.17	NA	8.9 (by rev)
	Energy consumption	MWh	8977	9090	8990	9252	8140	NA
	Energy intensity	MWh/m2	0.22	0.21	0.21	0.21	NA	NA
	Waste recycled	kg	26215	9692	7854	15320	7660	NA
	Waste to landfill	Kg	581940	552410	364632	467008	247402	NA
	% of women in workforce	%	48.7%	48.6%	47.7%	47.4%	47.3%	44.0%
	% of women in senior management	%	53.3%	44.4%	42.1%	47.5%	44.7%	28.0%
S	Gender pay ratio	-	1-to-1	1-to-1	1-to-1	1-to-1	1-to-1	Within 10% range
	Community investment (external, wef 2022)	MYR m	1.8	3.2	6.3	1.4	1.8	>SGD3m
	YBM scholarship prog (no. supported)	-	18	14	19	19	17	NA
	MD/CEO salary as % of pre-tax profit	%	0.91%	0.42%	0.56%	0.69%	0.68%	1.12%
G	Board (ex-CEO) salary as % of pre-tax profit	%	1.38%	0.73%	0.81%	1.15%	1.10%	0.34%
	Independent directors on the Board	%	90%	91%	90%	90%	89%	58%
	Female directors on the Board	%	50%	36%	30%	30%	33%	33%

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).
- Does the company follow the Task Force on Climate-Related Financial Disclosures (TCFD) framework for ESG reporting?

 Yes Bursa remains guided by the adoption of the recommendation of the TCFD; it is an official supporter of TCFD in 2018. In 2021, it embarked on an exercise 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 employees' commute, homeworking, waste disposal, business travel, paper consumption, water consumption.

 Selected disclosure within Bursa's Sustainability Report 2023 have been verified by BSI Services Malaysia S/B.
- $^{
 m e)}$ 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, used for toilet flushing and its cooling tower. For waste management, non-hazardous waste are disposed in Bukit Tagar landfill via the Taman Lembah Beringin Transfer Station. Well-labelled paper recycling bins are provided throughout its office to encourage employees to recycle paper.

In Dec 2022, Bursa launched the voluntary carbon market (VCM) Exchange with the introduction of the Bursa Carbon Exchange (BCX).

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

Yes - Bursa met its carbon neutrality target for 2023 (for the 3rd year) by offsetting all operational GHG (Scope 1 & 3) emissions generated in 2023 through the purchase of 3,668 tCO2e of carbon credits. In 2023, Bursa began to transition towards utilising green energy via Renewable Energy Certificates (RECs), subscribing to 3,633.72 tCO2e.

Townsh (Course (7)		
Target (Score: 67)		
Particulars	Target	Achieved
Carbon neutrality in 2023	Neutral	Yes
Net zero greenhouse gas (GHG) emissions by 2050	Net-0	N/A
1% of PAT towards corporate social responsibility (CSR) activities	1.0%	0.7% (FY23)
Impact		
N/A		
Overall score: 68		
As per our ESG matrix, Bursa Malaysia (BURSA MK) has an overall score of 68.		

ESG score	Weights	Scores	Final Score
Quantitative	50%	53	27
Qualitative	25%	100	25
Target	25%	67	17
Total			68

As per our ESG assessment, BURSA has an established framework, internal policies, and tangible mid/long-term targets. BURSA'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).



Hong Leong Financial Group (HLFG MK)

BANKING, FINANCIAL SERVICES & INSURANCE

	Quantitative Parameters (Score: 35)						
	Particulars	Unit	FYE6/22	FYE6/23	FYE6/24	HLBK MK (FY24)	
	Scope 1 emissions	tonnes CO2e	210	264	221	121	
	Scope 2 emissions	tonnes CO2e	33,345	33,614	32,096	26,278	
	Total	tonnes CO2e	33,555	33,878	32,317	26,399	
	Scope 3 emissions	tonnes CO2e	10,472	14,167	15,869	13,824	
	Total	tonnes CO2e	44,027	48,045	48,186	40,223	
Е	GHG intensity (Scope 1 and 2)	kg CO2e/emp	4,723	5,036	5,108	4,914	
-	Financed emissions	tonnes C02e	na	na	na	NA	
	Exposure to ESG sensitive sectors	% of loan book	na	na	5.0%	5.0%	
	Electricity consumption	MWh	48,285	46,779	44,916	36,819	
	Water consumption	m3	234,398	271,552	317,467	228,039	
	Petrol consumption	litres	na	na	na	69,454	
	Paper consumption	kg	172,122	186,904	169,250	150,176	
	Net promoter score	%	na	na	na	na	
	Substantiated complaints re human rights v	riolations cases	0	0	0	0	
	Substantiated complaints re customer						
S	privacy breaches and customer data loss	cases	0	0	0	0	
	Women in workforce		62.8%	63.0%	63.4%	64.0%	
	Women in senior management roles	%	42.1%	40.9%	41.6%	41.9%	
	Attrition rate	%	19.7%	22.3%	19.9%	19.8%	
	MD/CEO salary as % of reported net profit	%	0.43%	0.40%	0.38%	0.15%	
	Board salary as % of reported net profit	%	0.04%	0.03%	0.03%	0.04%	
G	Independent directors on the Board	%	71%	71%	71%	63%	
	Profits distributed to shareholders	% of net profit	23.0%	19.3%	19.4%	33.2%	
	Female directors on the Board	%	57%	57%	57%	38%	

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. The Sustainability Committee comprises the Group CFO, CRO, General Counsel and Chief Compliance Officer, Group Co. Sec.
- 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 performance evaluation of Senior Officers incorporates meritocracy in performance, key behaviours in accordance with HLFG's Code of Conduct & Ethics for employees and, risk and compliance management including the management of ESG Risks.
- c) Does the company follow TCFD framework for ESG reporting? Is it signatory to responsible banking initiative or other such initiatives?
- Yes. Reports are 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?
- HL Bank has embarked on this with the disclosure of financed emissions from auto loans and mortgages. It is currently looking to establish a baseline for other assets.
- 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 HL 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 June 2026 from 2019 base-line	15-25%	29%
To finance MYR4b renewable energy projects by FY25	MYR4b	MYR3.5b
To finance MYR14.4b green & affordable mortgages by FY24	MYR14.4b	MYR14.6b
To finance MYR0.96b green auto loans by FY24	MYR0.96b	MYR1.2b
Impact		
NA		
Overall Score: 68		
As per our ESG matrix, Hong Leong Financial Group (HLFG MK) has an overall score of 68.		

ESG score	Weights	Scores	Final Score
Quantitative	50%	35	18
Qualitative	25%	100	25
Target	25%	100	25
Total			68

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 68, which makes its ESG rating above average in our view (average ESG rating = 50; refer to Appendix I for our ESG Assessment Scoring).



RHB Bank (RHBBANK MK)	BANKING, FINANCIAL SERVICES & INSURANCE
, , ,	2 (1)

	Quantitative parameters (Score: 52)						
						PBK MK	
	Particulars	Unit	2021	2022	2023	(FY23)	
	Scope 1 emissions	tonnes CO2e	159	183	193	2,891	
	Scope 2 emissions	tonnes CO2e	23,810	23,278	22,099	61,172	
	Total	tonnes CO2e	23,969	23,461	22,292	64,063	
	Scope 3 emissions	tonnes CO2e	1,616	1,810	2,288	23,160	
	Total	tonnes CO2e	25,585	25,271	24,580	87,223	
Е	GHG intensity (Scope 1 and 2)	tCO2e/emp	1.9	1.8	1.7	4.4	
ļ -	Financed emissions	kt CO2e	na	9,260	na	6,039	
	Exposure to ESG sensitive sectors	% of loan book	na	na	na	~1%	
	Electricity consumption	MWh	41,616	40,758	38,631	96,032	
	Water consumption	m3	79,013	126,222	115,760	479,193	
	Fuel consumption (transport)	Gj	na	na	na	NA	
	Solid waste recycled	tonnes	na	na	55	602	
	Net promoter score	score	15	12	20	61	
	Substantiated complaints re human rights viola	ation cases	0	0	0	0	
	Substantiated complaints re customer privacy						
S	breaches and customer data loss	cases	4	0	3	0	
	% of women in workforce	%	59.8%	59.4%	59.8%	60.2%	
	% of women in management roles	%	27.7%	30.3%	33.9%	48.8%	
	Attrition rate	%	10.8%	14.1%	12.4%	9.5%	
	MD/CEO salary as % of reported net profit	%	0.16%	0.17%	0.22%	0.79%	
	Board salary as % of reported net profit	%	0.12%	0.17%	0.18%	0.12%	
G	Independent directors on the Board	%	60%	60%	60%	56%	
	Profits distributed to shareholders	% of net profit	57.5%	63.2%	61.1%	55.5%	
	Female directors on the Board	%	30%	30%	30%	44%	

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 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?
- Yes. The group has integrated sustainability targets within its performance assessment and reward system, which aligns the Group's executive remuneration with sustainability performance.
- c) Does the bank follow TCFD framework for ESG reporting? Is it signatory to responsible banking initiative or other such initiatives? Yes. It has developed a Sustainability and Climate Disclosure framework in compliance with various regulations, including TCFD GRI Standards, Integrated Reporting Framework and UN SDGs. It is a member of the United Nations Global Compact Network.
- d) Has the bank established its financed emissions baseline?
- Yes. The baseline set was 31 Dec 2022 and the computed financed emissions then, based on the Partnership for Carbon Accounting Financials, was 9.26 MTCO2e.
- 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
MYR50b in sustainable financial services by 2026	MYR50b	MYR23.8b
MYR5b in non-retail green financing by 2025	MYR5b	MYR10.2b
MYR1b in green financing for SMEs and retail customers by 2025	MYR1b	MYR1.1b
Impact		
NA		
Overall score: 68		
As per our ESG matrix, RHB Bank (RHBBANK MK) has an overall score of 68.		

ESG score	Weights	Scores	Final Score
Quantitative	50%	52	26
Qualitative	25%	67	17
Target	25%	100	25
Total			68

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 68, which is above average on our ESG rating (average ESG rating = 50; refer to Appendix I for our ESG Assessment Scoring).



AMMB Holdings (AMM MK)	BANKING	FINANCIAL	SERVICES &	INSURANCE
AMMD HOIGHIES TAMM MIXT				

	Quantitative parameters (Score: 38)						
						PBK MK	
	Particulars	Unit	FYE3/22	FYE3/23	FYE3/24	(FY23)	
	Scope 1 emissions	tonnes CO2e	41	70	65	2,891	
	Scope 2 emissions	tonnes CO2e	18,703	16,806	17,368	61,172	
	Total	tonnes CO2e	18,744	16,876	17,433	64,063	
	Scope 3 emissions	tonnes CO2e	529	877	1,231	23,160	
	Total	tonnes CO2e	19,273	17,753	18,664	87,223	
Е	GHG intensity (Scope 1 and 2)	kg CO2e/emp	2,074	2,242	2,425	4,400	
_	Financed emissions	tonnes CO2e	na	na	na	6,039	
	Exposure to ESG sensitive sectors	% of loan book	na	na	na	~1%	
	Electricity consumption	MWh	27,266	24,263	24,978	96,032	
	Water consumption	m3	64.3	73.6	72.8	479,193	
	Petrol consumption	litres	18,077	30,792	27,718	326,831	
	Waste generated	(kg)	13,198	17,805	17,539	NA	
	Net promoter score	%	19	20	27	61	
	Substantiated complaints re human rights viol		0	0	0	0	
	Substantiated complaints re customer privacy	•					
S	breaches and customer data loss	cases	12	15	24	0	
	% of women in workforce	%	62.6%	61.5%	61.9%	60.2%	
	% of women in senior management roles	%	31.6%	30.1%	30.1%	48.8%	
	Attrition rate	%	14.7%	17.5%	16.4%	9.5%	
_	MD/CEO salary as % of reported net profit	%	0.47%	0.69%	0.76%	0.79%	
	Board salary as % of reported net profit	%	0.39%	0.26%	0.26%	0.12%	
G	Independent directors on the Board	%	78%	78%	78%	56%	
	Profits distributed to shareholders	% of net profit	10.0%	35.5%	40.1%	55.5%	
	Female directors on the Board	%	33%	33%	33%	44%	

Qualitative parameters (Score: 80)

- 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?
- Yes. Its climate-related risk processes align with those set forth by the TCFD, BNM's CCPT and Climate Risk Management, and Scenario Analysis (CRMSA) Policy.
- 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.

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

Yes. Exclusion list includes weapons, firearms, explosives, natural habitat in violation of PERHILITAN, wildlife violation of PERHILITAN, national/world heritage sites, forced labour or child labour, new coal related lending activities.

Target (Score: 100)				
Particulars	Target	Achieved		
To reduce overall carbon emissions against FY19 baseline	NA	-36%		
Targets at least 70% of the non-retail loan/financing portfolio (for limits of at least MYR10m) to consist				
of exposures to low ESG Risk Rating by FY30.	70%	NA		
Impact				

NA
Overall score: 64

As per our ESG matrix, AMMB Holdings (AMM MK) has an overall score of 64.

ESG score	Weights	Scores	Final Score
Quantitative	50%	38	19
Qualitative	25%	80	20
Target	25%	100	25
Total			64

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 64, which makes its ESG rating above average in our view (average ESG rating = 50; refer to Appendix I for our ESG Assessment Scoring).

Female directors on the Board



Bar	nk Islam Malaysia (BIMB MK)		BANKING.	FINANCIAL	SERVICES &	INSURANCE
	Quan	titative Paramet	ers (Score: 38)			
						PBK MK
	Particulars	Unit	2021	2022	2023	(FY23)
	Scope 1 emissions	tonnes CO2e	5.600	5.600	8.800	2,891
	Scope 2 emissions	tonnes CO2e	11,635	11,848	11,785	61,172
	Total	tonnes CO2e	11,641	11,854	11,794	64,063
	Scope 3 emissions	tonnes CO2e	273	409	485	23,160
	Total	tonnes CO2e	11,914	12,262	12,279	87,223
Ε	GHG intensity (Scope 1 and 2)	tCO2e/emp	2.5	2.6	2.5	4.4
-	Financed emissions	kt CO2e	na	na	na	6,039
	Exposure to ESG sensitive sectors	% of loan book	na	na	na	~1%
	Electricity consumption	MWh	13	12	16	96
	Water consumption	m3	195	158	212	479
	Petrol consumption	litres	2,370	2,631	0	326,831
	Sheets of paper used	m sheets	36	42	49	na
	Net promoter score	score	49	71	67	61
	Substantiated complaints re human rights violat	ion cases	na	na	0	0
	Substantiated complaints re customer privacy					
S	breaches and customer data loss	cases	na	na	10	0
	% of women in workforce	%	48.5%	48.7%	48.9%	60.2%
	% of women in management roles	%	9.7%	11.0%	12.0%	48.8%
	Attrition rate	%	3.4%	4.1%	3.4%	9.5%
	MD/CEO salary as % of reported net profit	%	0.53%	0.67%	0.58%	0.79%
	Board salary as % of reported net profit	%	0.70%	0.76%	0.66%	0.12%
G	Independent directors on the Board	%	73%	80%	89%	56%
	Profits distributed to shareholders	% of net profit	42.5%	61.1%	68.9%	55.5%

Qualitative Parameters (Score: 50)

18%

30%

33%

- a) Is there an ESG policy in place and whether there is a standalone ESG Committee or is it part of Risk committee? There is a standalone Board Strategic & Sustainability Committee (BSSC).
- 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

Yes. From FY23, ESG metrics have been incorporated into the compensation structure to evaluation performance of the Board.

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

Founding member of the Joint Committee on Climate Change and is represented in Sub-Committee 1: Risk Management. It is cochair of the CCPT Implementation Group.

- 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.

f) Does the bank have a "no deforestation, no peat, no exploitation (NDPE)" policy in place? *Not stated.*

Target (Score: 100)		
Particulars	Target	Achieved
To phase out and end-financing of coal related activities by 2030	NA	NA
To double Shariah-ESG assets to MYR4b by 2025 from MYR2.2b in 2021	MYR4b	MYR4.5b
Impact		
NA		
Overall Score: 57		
As per our ESG matrix, Bank Islam (BIMB MK) has an overall score of 57.		

ESG score	Weights	Scores	Final Score
Quantitative	50%	38	19
Qualitative	25%	50	13
Target	25%	100	25
Total			57

BIMB's ESG disclosures have improved over the past two years and as a result, its overall ESG score of 57 is higher than it was two years ago of 43. There is, however, still room for improvement in terms of disclosures. BIMB's overall ESG score of 57 is above average in our view (average ESG rating = 50; refer to Appendix I for our ESG Assessment Scoring).



Astro Malaysia (ASTRO MK)

BROADCASTING & SERVICES

	Quantitative Parameters (Score: 24)						
	Particulars	Unit	FY1/2022	FY1/2023	FY1/2024	STH SP (FY12/2023)	
	Scope 1 emissions	tCO2e	1,241	1,152	673	1,962	
	Scope 2 emissions	tCO2e	23,181	22,644	21,780	52,374	
	Total	tCO2e	24,422	23,796	22,453	54,336	
	Scope 3 emissions	tCO2e	4,928	4,913	5,909	43,398	
Е	Total	tCO2e	29,350	28,709	28,362	97,734	
-	Scope 1 & 2 emissions per employee	tCO2e	5.8	6.6	7.8	34.0	
	Electricity and energy consumption per employee	MWh	7.3	8.3	9.9	85.5	
	Renewable energy as % of electricity consumption	%	5%	5%	7%	14%	
	Waste diverted away from disposal/landfill	%	30%	18%	23%	92%	
	Water consumption per employee	m3	35.5	41.8	48.2	4.8	
	% of women in workforce	%	51%	49%	49%	41%	
	% of women in management roles	%	43%	46%	50%	33%	
	Investment in community projects as % of core net						
S	profit	%	N/A	0%	0%	0%	
	Employee attrition rate	%	14%	14%	12%	20%	
	Hours of training per employee	hours	3.4	7.6	10.3	28.9	
	Cyber security and data privacy incidents	number	-	-	-	-	
	Board salary as % of core net profit	%	1%	1%	2%	1%	
G	Independent directors on the Board	%	38%	44%	43%	55%	
G	Female directors on the Board	%	38%	44%	29%	27%	
	Distribution to shareholders as % of core net profit	%	74%	58%	8%	80%	

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. ASTRO has an ESG policy and a standalone ESG Committee in place.
- b) Is the senior management salary linked to fulfiling ESG targets?
- c) Does the company follow TCFD framework for ESG reporting or participate in the United Nations Global Compact?

 Not in full but adopting parts of TCFD in stages. Moreover, ASTRO's carbon footprint is small. More importantly, ASTRO is a major provider of education to the less privileged.
- e) Does the company have a mechanism to capture Scope 3 emissions which parameters are captured?

 Yes. Captures upstream transportation & distribution (Category 4), waste generated in operations (Category 5), business travel (Category 6) and employee commuting (Category 7).
- f) What are the 2-3 key carbon mitigation/water/waste management strategies adopted by the company? Installed solar panels and plans to install more. Installed rainwater harvesting system at All Asia Broadcasting Centre (AABC) which can store up to 13,500 litres of rainwater. Where possible, used set-top-boxes are refurbished and redeployed. Installed centralised waste bins at AABC to segregate waste for recycling.
- g) Does carbon offset form part of the net zero/carbon neutrality target of the company? Yes. Residual emissions to be offset through carbon credits.

Target (Score: 100)		
Particulars	Target	Achieved
10% reduction in emissions by 2026 vs baseline of 2020	-10%	-19%
28% reduction in emissions by 2031 vs baseline of 2020	-28%	-19%
ISO 27001:2013 (ISMS) annual recertification with zero Non-Conformance Report		-
10% annual increase in average employee training hours	10%	35%
Average Customer Satisfaction Score of ≥80%	80%	83%
2% reduction in energy consumption from FY22 baseline by FY26 (FY22: 110,085 GJ)	-2%	-6%
2% reduction in total water consumption from FY22 baseline by FY26 (FY22: 149 Megalitres)	-2%	-7%
5% annual increase in VFG hours (comprising PSA and ESG-related content)	5%	24%
11,000 Education On Demand videos	11,000	13,100
Total of 20,000 employee volunteer hours (FY24 to FY26)	20,000	2,232
Carbon neutral by 2040	2040	N/A
Impact		
NA		
Overall Score: 62		
As per our ESG matrix, Astro Malaysia (ASTRO MK) has an overall score of 62		

ESG score	Weights	Scores	Final Score
Quantitative	50%	24	12
Qualitative	25%	100	25
Target	25%	100	25
Total			62

As per our ESG assessment, ASTRO has an established framework, internal policies, and tangible mid/long-term targets. ASTRO's 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).



Media Prima (MPR MK)

BROADCASTING & SERVICES

	Quantitative Parameters (Score: 65)							
			`	•		ASTRO MK		
	Particulars	Unit	FY12/22	6MFPE6/23	FY6/24	(FY1/2024)		
	Scope 1 emissions	tCO2e	342	157	480	673		
	Scope 2 emissions	tCO2e	5,670	1,952	20,109	21,780		
	Total	tCO2e	6,012	2,110	20,589	22,453		
	Scope 3 emissions	tCO2e	-	-	3,285	5,909		
Е	Total	tCO2e	6,012	2,110	23,874	28,362		
-	Scope 1 & 2 emissions per employee	tCO2e	2.5	0.9	8.9	7.8		
	Electricity and energy consumption per employee	MWh	15.1	6.5	11.5	9.9		
	Renewable energy as % of electricity consumption	%	N/A	N/A	N/A	7%		
	Waste diverted away from disposal/landfill	%	N/A	N/A	33.3%	23.2%		
	Water consumption per employee	m3	45.5	29.9	55.6	48.2		
	% of women in workforce	%	N/A	44%	45%	49%		
	% of women in management roles	%	45%	45%	47%	50%		
S	Investment in community projects as % of revenue	%	N/A	0.6%	0.6%	0.0%		
3	Employee attrition rate	%	14%	5%	12%	12%		
	Employee training per employee	hours	19	13	29	10.3		
	Cyber security and data privacy incidents	number	-	-	-	-		
	Board salary as % of revenue	%	N/A	N/A	0.3%	0.1%		
G	Independent directors on the Board	%	N/A	83%	83%	43%		
G	Female directors on the Board	%	17%	17%	17%	29%		
	Distribution to shareholders as % of core net profit	%	N/A	N/A	46%	8%		

Qualitative Paramaters (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?

 MPR is in the midst of developing an ESG policy. That said, it has already established an ESG Working Committee which reports to the Sustainability Steering Committee which in turn, reports to the Board of Directors.
- b) Is the senior management salary linked to fulfilling ESG targets? No, but MPR is in the midst of implementing this.
- c) Does the company follow TCFD framework for ESG reporting or partcipate in the United Nations Global Compact? No, but MPR is in the midst of implementing this.
- e) Does the company have a mechanism to capture Scope 3 emissions which parameters are captured? Yes. Employee commuting and business travel.
- f) What are the 2-3 key carbon mitigation/water/waste management strategies adopted by the company?

 MPR has initiatives in place to minimize waste such as the maintenance of its wastewater treatment plant, and proper disposal of newsprint waste to licensed Department of Environment (DoE) contractors. MPR also enforces energy-saving policies, such as its "No Cost Energy Saving" energy-reducing measures cascaded down to its employees. MPR's largest energy use component is its chillers, which they have scheduled chiller managements to ensure energy use is low.
- g) Does carbon offset form part of the net zero/carbon neutrality target of the company?

 MPR does not require carbon offset given its operations' relatively low carbon footprint.

Target (Score: 0)		
Particulars	Target	Achieved
MPR currently does not have any formal ESG targets	N/A	N/A
Impact		
NA		
Overall Score: 49		
As per our ESG matrix, Media Prima (MPR MK) has an overall score of 49.		

ESG score	Weights	Scores	Final Score
Quantitative	50%	65	32
Qualitative	25%	67	17
Target	25%	0	0
Total			49

As per our ESG assessment, we believe MPR could improve in its formal policies, such as aligning its environmental disclosures to TCFD recommendations and setting measurable ESG targets. However, given the nature of MPR's business, we believe MPR's ESG focus is more on its social and governance aspects, which we believe MPR performs commendably. MPR's overall ESG score is 49, which makes its ESG performance average in our view.



AEON Co. (M) (AEON MK)

CONSUMER DISCRETIONARY

	Quantitative Parameters (Score: 47)						
	Particulars	Unit	2021	2022	2023	PKS MK (2023)	
	Scope 1 GHG emissions	tCO2e	1,506	1,663	1,482	NA	
	Scope 2 GHG emissions	tCO2e	198,056	61,548	103,026	NA	
	Total	tCO2e	199,562	63,211	104,508	NA	
	Scope 3 GHG emissions	tCO2e	23,909	27,959	26,094	NA	
Е	Total	tCO2e	223,471	91,170	130,602	NA	
_	Emission intensity	tCO2e/MWh	0.65	0.22	0.32	NA	
	Electricity consumption	MWh	425,221	521,107	528,661	43,258	
	Renewable energy consumption	%	NA	75%	56%	NA	
	Total waste generated	MT	45,108	58,238	62,260	NA	
	Total water consumption	cubic m	4,036	4,757	4,812	130,740	
	% of women in workforce	%	58%	57%	54%	62.8%	
	% of women in management roles	%	NA	48%	58%	NA	
S	Lost time injury frequency (LTIF) rate	per m hrs	1.1	1.2	1.2	0.0	
	Average training hours	hours	NA	16	29	NA	
	Persons with disability (PWD) employed	no.	1%	1%	2%	NA	
	Customer satisfaction score	%	53%	64%	NA	NA	
	MD/CEO salary as % of reported net profit	%	0.19%	NA	1.05%	-14.8%	
	Board salary as % of reported net profit	%	4.6%	4.4%	2.6%	-19.3%	
G	Independent directors on the Board	%	50%	55%	60%	50%	
	Female directors on the Board	%	13%	18%	40%	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 and climate change policy and they also have a sustainable steering committee chaired by the managing director. The board provides oversight on AEON's overall sustainability strategy and it is supported by the audit and risk management committee
- b) Is the senior management salary linked to fulfilling ESG targets?
- c) Does the company follow TCFD framework for ESG reporting?

Not at the moment. AEON has begun the process to move towards full TCFD compliance by 2025.

- d) Does the company have a mechanism to capture Scope 3 emissions which parameters are captured?
- Yes. Scope 3 encompasses emissions associated with its shopping mall tenants' energy consumption.
- e) What are the 2-3 key carbon mitigation/water/waste management strategies adopted by the company?

 AEON has completed its transition from conventional to LED lighting in all its malls and stores. It has also subscribed for Green Electricity Tariffs (GET) under TNB for 27 malls and 1 store, and installed solar PVs to transition towards using renewable energy as a power source. AEON has also implemented an integrated waste management system, a pilot project to improve waste management by collecting food waste.
- f) Does carbon offset form part of the net zero/carbon neutrality target of the company? No.

Target (Score: 100)		
Particulars	Target	Achieved
Carbon neutral by 2040	100%	NA
Reduce 30% electricity consumption by 2030 (from 2019)	30%	NA
Increase recycling rate to 15% by 2030	15%	11%
Impact		
NA		
Overall Score: 65		
As per our ESG matrix, AEON Co.(M) has an overall score of 65.		

ESG score	Weights	Scores	Final Score
Quantitative	50%	47	24
Qualitative	25%	67	17
Target	25%	100	25
Total			65

As per our ESG assessment, AEON has implemented a groupwide sustainability and climate change policy with clear outlines to support its ESG goals. AEON's overall ESG score is 65, which makes its ESG rating above average, in our view (average ESG rating = 50; refer to Appendix I for our ESG Assessment Scoring).



MR D.I.Y. Group (M) (MRDIY MK)

CONSUMER DISCRETIONARY

	Quantitative Parameters (Score: 53)						
	Particulars	Unit	FY21	FY22	FY23	ACES IJ (FY23)	
	Scope 1 GHG emissions	tCO2e	0.3	0.3	0.5	NA	
	Scope 2 GHG emissions	tCO2e	70,046	93,749	116,616	NA	
	Total	tCO2e	70,046	93,749	116,616	NA	
	Scope 3 GHG emissions	tCO2e	NA	NA	NA	NA	
	Total	tCO2e	70,046	93,749	116,616	NA	
Ε	GHG intensity (Scope 1 and 2)	tCO2e/store	NA	NA	NA	na	
	Electricity consumption	MJ	478,286	612,581	764,888	161,280	
	Renewable energy generated	MJ	NA	923	2,309	NA	
	Diesel consumption	ltr/1,000					
	·	transactions	27.5	25.7	27.5	NA	
	Total volume of water used	Megalitres	99	157	172	0.2	
	Total carton boxes received from suppliers	tonne	7,726	10,568	10,305	NA	
	% of women in workforce	%	43.7%	40.9%	38.3%	32.0%	
	% of women in management roles	%	46.0%	47.0%	49.0%	NA	
S	Lost time injury frequency (LTIF) rate	%	0.48	0.50	0.40	NA	
ے	Customer satisfaction rate	%	75 %	94%	98%	91%	
	Rate of local product sourcing	%	29.4%	28.7%	31.5%	34%	
	Total training hours per employee	hour	12.4	14.9	20.0	NA	
	MD/CEO salary as % of reported net profit	%	0.3%	0.3%	0.2%	NA	
G	Board salary as % of reported net profit	%	0.8%	0.6%	0.5%	0.0%	
9	Independent directors on the Board	%	57%	57%	67%	40%	
	Female directors on the Board	%	43%	43%	50%	20%	

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 MRDIY has a standalone sustainability committee. The Board holds ultimate accountability for integrating sustainability into the group's decision-making and strategic planning process.
- b) Is the senior management salary linked to fulfilling ESG targets?
- Yes sustainability KPIs are incorporated into the performance scorecards of senior management.
- c) Does the company follow the Task Force on Climate-Related Financial Disclosures (TCFD) framework for ESG reporting?
- No the company has initiated the alignment of its climate-related disclosures with TCFD's recommendations but is not in full compliance at this juncture.
- 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 has installed solar panels at 4 out of 19 distribution facilities which translated to 10.6% of its total energy source in FY23. MRDIY also implemented a GPS tracking system for its logistics fleet to collect real-time data for better route planning, fleet management and fuel efficiency. The group also reuses the carton boxes received from its suppliers 18 times before they are sold to recycling centres.

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

Target (Score: 100)		
Particulars	Target	Achieved
30% reduction in electricity consumption per standalone store vs 2021 baseline of 149MWh	104.3MWh	152 MWh
Increase renewable energy mix at distribution facilities by 2030	30%	10.6%
Zero LTIF rate by 2025 vs 2020 baseline	0.0	0.4
20% diesel consumption reduction by 2030 vs 2021 baseline of 27.5 litres	22 litres	27.5 litres
Include eco-products into sales mix by 2030 vs 2021 baseline of 3.0%	10%	3.5%
lmpact		

Impact NA

Overall Score: 64

As per our ESG matrix, MR D.I.Y. Group (M) (MRDIY MK) has an overall score of 64.

ESG score	Weights	Scores	Final Score
Quantitative	50%	53	26
Qualitative	25%	50	13
Target	25%	100	25
Total			64

MRDIY has a comprehensive ESG framework and established internal policies with tangible long-term targets. MRDIY's overall ESG score is **64**, which makes its ESG rating **above average** in our view (average ESG rating = 50; refer to Appendix I for our ESG Assessment Scoring).



InNature (INNATURE MK)

CONSUMER DISCRETIONARY

	Quantitative Parameters (Score: 42)					
	Particulars	Unit	2021	2022	2023	NTCO3 BS (2023)
	Scope 1 GHG emissions	tCO2e	15	17	14	22,811
	Scope 2 GHG emissions	tCO2e	515	653	679	24,778
	Total	tCO2e	530	670	693	47,589
	Scope 3 GHG emissions	tCO2e	1,029	1,093	972	2,801,601
	Total	tCO2e	1,559	1,763	1,665	2,849,190
Ε	Carbon intensity (Scope 1, 2)	tCO2e/sq ft	0.01	0.02	0.01	NA
	Total energy consumption	MWh	890	1,124	1,170	241,092
	Energy intensity	MWh/sq ft	0.02	0.03	0.02	NA
	Production of repurposed products from	units	9,000	32,931	49,109	NA
	recycled packaging	units	9,000	32,731	47,107	IVA
	Packaging containers diverted from landfills		33,643	64,086	79,486	NA
	Total water consumption	m3	2,391	2,709	2,473	842,600
	% of women in workforce	%	83%	84%	83%	61.7%
s	% of women in management roles	%	80%	83%	50%	49.3%
3	Lost time injury frequency (LTIF) rate	%	0	0	0	0.22
	Employee training	hours	21	12	14	7.3
	Incidents of non-compliance concerning health	no.	0	0	0	0
	& safety impacts of products and services	110.	U	U	U	o
	Customer satisfaction score	%	84%	86%	88%	70%
	MD/CEO salary as % of reported net profit	%	4.6%	3.3%	7.0%	NA
G	Board salary as % of reported net profit	%	10.9%	8.0%	16.0%	8.3%
G	Independent directors on the Board	%	40%	40%	40%	67%
	Female directors on the Board	%	80%	80%	80%	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. INNATURE has set up a sustainability framework which encompasses internal sustainability policies and commitment statements. INNATURE is also a B Corp-certified public listed company. It has a Sustainability Steering Committee which reports to the Managing Director.
- b) Is the senior management salary linked to fulfilling ESG targets?
- Yes, the company has implemented a balanced scorecard programme whereby all levels of management and staff will be measured by achievements of ESG targets.
- c) Does the company follow the Task Force on Climate-Related Financial Disclosure (TCFD) framework for ESG reporting?
- No, the company does not completely follow the TCFD framework for ESG reporting, but has aligned certain disclosures where relevant, particularly around governance, strategy, risk management, metrics and target.
- e) Does the company have a mechanism to capture Scope 3 emissions which parameters are captured?
- Yes Scope 3 emissions capture the group's logistics, employee commuting and business travel.
- f) What are the 2-3 key carbon mitigation/water/waste management strategies adopted by the company?

INNATURE transitioned to energy-efficient LED lighting at its stores and offices, installing a solar photovoltaic system in October 2019. In 2023, c.33% of energy used at its HQ was generated from solar energy. It has also installed a water harvesting system in 2022, whereby water collected from rainfall is channelled to the washroom flushing system. Refill stations for shower selected shower gels and shampoos have been installed in 40% of its store across Malaysia, Vietnam and Cambodia.

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

Target (Score: 100)					
Particulars	Target	Achieved			
Reduction in minimum 10% in GHG emission, solid waste, impact on biodiversity by 2030	10%	NA			
100% of all packaging material is reusable, recyclable, or compostable by 2025	100%	NA			
95% renewable or natural ingredients (biodegradable) by 2030	95%	80%			
Impact					
NA					
Overall Score: 63					
As per our ESG matrix, INNATURE has an overall score of 63.	As per our ESG matrix, INNATURE has an overall score of 63.				

ESG score	Weights	Scores	Final Score
Quantitative	50%	42	21
Qualitative	25%	67	17
Target	25%	100	25
Total			63

As per our ESG assessment, INNATURE has developed a sustainability framework throughout the group, with long-term targets relating to the reduction of carbon emissions and packaging materials. INNATURE'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).



Mynews Holdings (MNHB MK)

CONSUMER DISCRETIONARY

	Quantitative Parameters (Score: 67)							
	Particulars	Unit	2021	2022	2023	SEM MK (2023)		
	Scope 1 GHG emissions	tCO2e	NA	NA	1,053	1,383		
	Scope 2 GHG emissions	tCO2e	NA	NA	2,156	187,810		
	Total	tCO2e	NA	NA	3,209	189,193		
	Scope 3 GHG emissions	tCO2e	NA	NA	2,188	22		
	Total	tCO2e	NA	NA	5,398	189,215		
Ε	GHG intensity (Scope 1 and 2)	tCO2e/tonne	NA	NA	NA	45		
	Electricity consumption	MWh	NA	5,622	NA	257,290		
	Water consumption	m3	NA	NA	NA	30,300		
	Recycled corrugated boxes	Kg	15,865	20,201	24,775	NA		
	Biodegradable packaging	%	NA	90%	82%	NA		
	Renewable energy generated	MWh	NA	783	1,326	NA		
	% of women in workforce	%	48%	47%	43%	52%		
	% of women in management roles	%	NA	NA	NA	67.0%		
S	Lost time incident rate	No.	0	0	NA	0.1		
	Customer satisfaction index	%	NA	NA	NA	NA		
	Average hours of training/employee	p.a.	22	9	45	18		
	MD/CEO salary as % of reported net profit	%	(1.8%)	(3.9%)	(6.6%)	5.7%		
	Board salary as % of reported net profit	%	(4.6%)	(12.1%)	(22.5%)	7.3%		
G	Independent directors on the Board	%	50%	57%	50%	33%		
	Female directors on the Board	%	17%	29%	33%	22%		

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 MNHB has a standalone sustainability committee responsible for leading groupwide sustainability strategies. The sustainability committee is headed by the Board of Directors.
- b) Is the senior management salary linked to fulfilling ESG targets?
- c) Is the company taking initiatives to improve the nutritional value of its products and making products healthier?
- d) Does the company have a mechanism to capture Scope 3 emissions which parameters are captured?

Yes. Scope 3 emissions capture indirect emissions from employees' and other business travel.

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

 MNHB has a dedicated recycling programme for the usage of its corrugated boxes and cooking oils. Corrugated boxes are reused in their warehouses and a portion are sold to third party vendors to be recycled. Similiarly, its cooking oil are also onsold to a licensed recycle vendor. Majority of Mynews outlets are using energy-saving LED lights. All store plastic bags are made of biodegradable ingredients which are compostable.
- f) Does carbon offset form part of the net zero/carbon neutrality target of the company? *No.*

Target	Achieved
NA	NA

Impact NA

Overall Score: 50

As per our ESG matrix, MNHB has an overall score of 50

ESG score	Weights	Scores	Final Score
Quantitative	50%	67	33
Qualitative	25%	67	17
Target	25%	0	0
Total			50

As per our ESG assessment, MNHB's sustainability measures and disclosures have improved but it still lacks concrete long-term targets. For these reasons, MNHB's overall ESG score has risen to 50 (from 28, last review on 15 Sep 2023), which gives it an average ESG rating, in our view (average ESG rating = 50; refer to Appendix I for our ESG Assessment Scoring).



Sin	Sime Darby Bhd (SIME MK) CONSUMER DISCRETIONARY					
•	Q Q	uantitative Parameters (Score: 16)			
	Particulars	Unit	FY22	FY23	FY24	BAUTO MK (FY24)
	Scope 1 emissions	tCO2e	32,000	34,000	47,000	1,001
	Scope 2 emissions	tCO2e	68,000	71,000	121,000	3,790
	Total	tCO2e	100,000	105,000	168,000	4,791
	Scope 3 emissions	tCO2e	NA	NA	NA	1,944
	Total	tCO2e	100,000	105,000	168,000	6,735
	GHG intensity (by revenue)	tCO2e/MYR'm	2.4	2.2	2.5	1.2
Ε	EV sales as % of total	%	5%	18%	29%	<1%
-	Energy consumption	GJ	1,003,446	972,268	1,646,224	33,421
	Energy intensity (by revenue)	GJ/ MYR'm	23.6	20.1	24.5	8.5
	RE as a % of electricity consumption	%	1.0%	1.0%	1.6%	3.7%
	Scheduled waste	Tonnes	8,170	8,211	NA	345
	Total waste recycled	%	NA	NA	NA	8.9%
	Water consumption	'000 M3	961	927	1,367	47
	Water intensity (by revenue)	M3/MYR'm	22.6	19.2	20.4	11.9
	% of women in workforce	%	25.2%	25.9%	25.0%	30.3%
	% of women in top management	%	10.8%	12.2%	15.0%	21.7%
S	Community investment	MYR'm	20.0	25.0	30.0	1.3
	Lost time incident rate	Rate	1.09	1.03	1.05	0.5
	Average training hours	Hrs/employee	21	18	13	11
	CEO salary as % of reported net profit	%	0.6%	0.4%	0.2%	1.1%
	Board salary as % of reported net profit	%	0.9%	0.7%	0.3%	2.9%
G	Independent directors on the Board	%	58.0%	54.5%	58.3%	57.1%
	Female directors on the Board	%	25.0%	18.0%	25.0%	28.6%

Qualitative Parameters (Score: 67)

number

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

Yes - SIME developed its Sustainability Blueprint in 2021, but SIME's Sustainability Committee has been part of its Risk Management Committee since Nov 2022, which oversees the sustainability agenda, strategy and other economic, environmental and social risks. b) Is the senior management salary linked to fulfiling ESG targets?

Total corruption and bribery cases

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

SIME indicated plans to adopt the TCFD framework but has since transitioned in 2024 to the International Financial Reporting Standards (IFRS) S1 and S2 due to disbandment of the TCFD.

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

No, but SIME has set a target to begin reporting Scope 3 emissions (which include business travel and employee commute) by FY25E, and to continue expanding coverage in the medium term.

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

Key initiatives include (i) operational decarbonization and improved emissions reporting, (ii) supporting low-emission vehicle transitions, (iii) emphasize conservation and efficiency monitoring in water management, and (iv) collaborates with waste collectors to enhance recycling rates and reduce costs through waste repurposing initiatives.

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

SIME focuses on reducing its GHG emissions directly through a Group Emissions Reduction Framework and has set a target to achieve a 30% reduction in GHG emissions as part of its path toward net zero by 2050.

Target (Score: 100)		
Particulars	Target	Achieved
Products in portfolio to be more energy efficient by 2025 (vs. 2020)	>50%	29% as of FY24
GHG emission (Scope 1 and Scope 2) reduction by 2030 (vs. 2020)	30%	N/A
Achieve Net Zero GHG Carbon Emissions by 2050	N/A	N/A
Investments in ESG innovation by 2025	>MYR250m	N/A
Impact		
NA		
Overall Score: 50		
As per our ESG matrix, SIME has an overall score of 50.		

ESG score	Weights	Scores	Final Score
Quantitative	50%	16	8
Qualitative	25%	67	17
Target	25%	100	25
Total			50

As per our ESG assessment, SIME has an established framework, internal policies, and tangible targets. However, key issues include declines in certain 'E' metrics, likely due to M&A consolidation, which will require ongoing monitoring. SIME's overall ESG score is 50, within average, in our view (average ESG rating = 50; refer to App I for our ESG Assessment Scoring).

November 19, 2024



7-Eleven Malaysia Holdings (SEM MK)

CONSUMER DISCRETIONARY

	Quantitative Parameters (Score: 6)							
	Particulars	Unit	2021	2022	2023	MNHB MK (2023)		
	Scope 1 GHG emissions	tCO2e	934	945	1,383	1,053		
	Scope 2 GHG emissions	tCO2e	126,360	136,800	187,810	21,559		
	Total	tCO2e	127,294	137,745	189,193	22,613		
	Scope 3 GHG emissions	tCO2e	NA	24	22	21,885		
E	Total	tCO2e	127,294	137,769	189,215	76,897		
_	GHG intensity (Scope 1 and 2)	kgCO2e/MYR	58	47	45	NA		
	Electricity consumption	MWh	215,999	233,846	257,290	233.85		
	Water consumption	m3	12,968	14,413	30,300	14,413		
	Recycled waste	Kg	780	894	964	247.8		
	Cases of environmental non-compliance	No.	0	0	0	0		
	% of women in workforce	%	56%	55%	52%	43%		
	% of women in management roles	%	68.0%	69.0%	67.0%	NA		
S	Lost time incident rate	No.	0	0	0.1	NA		
	Average hours of training/employee	p.a.	16	12	18	45.00		
	Total invested in the community	MYRm	4.7	5.3	5.3	NA		
	MD/CEO salary as % of reported net profit	%	5.6%	4.1%	5.7%	(6.6%)		
	Board salary as % of reported net profit	%	6.8%	5.0%	7.3%	(22.5%)		
G	Independent directors on the Board	%	33%	40%	33%	50%		
	Female directors on the Board	%	22%	30%	22%	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 - SEM has developed its own sustainability framework and strategy. Its risk management and sustainability committee was established on 20 April 2022 to better address group ESG risks and it is led by the Board of Directors.

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

Yes.

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

Yes.

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

Yes - It currently measures the emissions from air travel.

e) What are the 2-3 key carbon mitigation/water/waste management strategies adopted by the company? SEM has installed energy-saving LED lights and induction lights to 100% of its stores. Air conditioners used in stores are also at least 3 or 4 star ratings in terms of energy efficiencies. The group also implemented its 7E Cross Dock System which minimises the number of delivery trips by individual suppliers to respective stores nationwide, thereby reducing diesel consumption and CO2 emissions.

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

N/A

Target (Score: 100)		
Particulars	Target	Achieved
To install energy-saving equipment in all stores by 2030	100%	NA
100% electrical material handling of equipment across all distribution centres and food commissary	100%	NA
Repurpose all food waste generated from food commissary to animal feed	100%	NA

Impact

NA

Overall Score: 49

As per our ESG matrix, 7-Eleven Malaysia Holdings has an overall score of 49

ESG score	Weights	Scores	Final Score
Quantitative	50%	6	3
Qualitative	25%	83	21
Target	25%	100	25
Total			49

As per our ESG assessment, SEM has implemented a sustainability framework but lacks long-term ESG commitments. For these reasons, SEM's overall ESG score is 49, which makes its ESG rating just below average, in our view (average ESG rating = 50; refer to Appendix I for our ESG Assessment Scoring).



Padini Holdings (PAD MK)

CONSUMER DISCRETIONARY

	Quantitative Parameters (Score: 29)						
	Particulars	Unit	2021	2022	2023	CTH MK (2023)	
	Scope 1 GHG emissions	tCO2e	NA	NA	NA	NA	
	Scope 2 GHG emissions	tCO2e	NA	NA	NA	NA	
	Total	tCO2e	NA	NA	NA	NA	
	Scope 3 GHG emissions	tCO2e	NA	NA	NA	NA	
Е	Total	tCO2e	NA	NA	NA	NA	
_	GHG intensity (Scope 1 and 2)	kgCO2e/tonne	NA	NA	NA	NA	
	Electricity consumption	kWh	685,665	513,706	827,778	367,970	
	Water consumption	m3	NA	NA	NA	6,925	
	RE % of electricity consumption	%	24%	34%	21%	53%	
	Sustainable products as a % of total purchases	%	NA	NA	0.6%	NA	
	% of recyclable and reusable packaging	%	NA	NA	NA	NA	
	% of women in workforce	%	60%	68%	70%	85%	
	% of women in management roles	%	50.0%	50.0%	42.9%	38.2%	
S	No. of accident cases	no.	22	12	33	0	
	Locally procured products & services	%	NA	NA	13.0%	NA	
	No. of customer complaints	no.	NA	60	94	NA	
	MD/CEO salary as % of reported net profit	%	1.90%	0.58%	0.69%	NA	
	Board salary as % of reported net profit	%	8.00%	2.62%	3.06%	NA	
G	Independent directors on the Board	%	40%	45%	50%	75%	
	Female directors on the Board	%	40%	45%	33%	25%	

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?

 Padini is in the midst of formulating its ESG policy but it has set up a sustainability committee, led by the Group Managing Director, to integrate relevant ESG policies into its day-to-day operations.
- b) Is the senior management salary linked to fulfilling ESG targets?
- c) Does the company follow TCFD framework for ESG reporting?
- d) Does the company have a mechanism to capture Scope 3 emissions which parameters are captured?
- e) What are the 2-3 key carbon mitigation/water/waste management strategies adopted by the company? Solar panels have been installed to partially offset the group's carbon emissions. It also launched a 'sustainable product' category using organic cotton, and recycled polyester yarn to reduce water usage during its manufacturing process and lessen its waste contribution to landfills. Biodegradable plastic bags, and recyclable paper bags and shoe boxes are used in all of their stores.
- f) Does carbon offset form part of the net zero/carbon neutrality target of the company? No.

Target (Score: 67)		
Particulars	Target	Achieved
Reduce electricity consumption by 20% by 2030	20%	22%
Zero environment legal non-compliance issues	0	0
20%	0	13

Impact
NA
Overall Score: 40
As per our ESG matrix, Padini Holdings has an overall score of 40.

ESG score	Weights	Scores	Final Score
Quantitative	50%	29	15
Qualitative	25%	33	8
Target	25%	67	17
Total			40

As per our ESG assessment, PAD's group ESG policy is still in the works and it has set up a sustainability committee but lacks transparency in terms of emission data points and relevant long-term ESG commitments. For these reasons, PAD's overall ESG score is 40, 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 (HEIM MK)

CONSUMER DISCRETIONARY

	Quantitative Parameters (Score: 47)						
	Particulars	Unit	2021	2022	2023	CAB MK (2023)	
	Scope 1 GHG emissions	tCO2e	6,609	7,810	6,375	4,346	
	Scope 2 GHG emissions	tCO2e	8,931	1,410	-	9,884	
	Total	tCO2e	15,540	9,220	6,375	14,230	
-	Scope 3 GHG emissions	tCO2e	N/A	N/A	1,310	N/A	
-	Total	tCO2e	15,540	9,220	7,685	14,230	
	Water usage	hl/hl	3.65	3.45	3.41	3.30	
	Share of renewable energy usage %	%	N/A	87%	100%	100%	
	Electricity usage	kWh/hl	10.62	8.97	9.39	11.0	
	Total waste generated	MT	24,078	35,423	32,632	25,743	
	Waste diverted from disposal	%	100%	100%	100%	N/A	
	% of women in workforce	%	N/A	N/A	N/A	N/A	
S	% of women in management roles	%	45.0%	42.0%	38.0%	63.0%	
	Lost time incident rate (LTIR)	rate	N/A	0.0	0.4	0.4	
	MD/CEO salary as % of reported net profit	%	1.4%	1.5%	1.8%	1.5%	
G	Board salary as % of reported net profit	%	1.7%	1.6%	2.0%	1.7%	
G	Independent directors on the Board	%	43%	43%	43%	43%	
	Female directors on the Board	%	43%	43%	43%	29%	

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, there is a standalone Sustainability Committee that is chaired by the Managing Director. It 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?

HEIM has implemented the Brew a Better World strategy, where annual KPIs are set to achieve 2030 sustainability targets, including climate-related ambitions. The Sustainability Committee, chaired by HEIM's Managing Director, include climate-related KPIs under the environmental sustainability pillar.

- c) Does the company follow the task force of climate related disclosures (TCFD) framework for ESG reporting?
- e) Does the company have a mechanism to capture Scope 3 emissions which parameters are captured? Yes. Scope 3 captures employee commute and business travel only.
- 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%	-65%
Net zero emissions across the value chain by 2040 0.0%	N/A
Fully balanced water used in products in water-stressed areas 100%	223%
Treat 100% of wastewater of all breweries 100%	100%
Reduce average water usage to 2.6hl/hl worldwide by 2030 2.6hl/hl	3.41hl/hl
Zero accidents in the workplace	0

Impact NA Overall Score: 65

As per our ESG matrix, Heineken Malaysia has an overall score of 65.

ESG score	Weights	Scores	Final Score
Quantitative	50%	47	23
Qualitative	25%	83	21
Target	25%	83	21
Total			65

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 65, which makes its ESG rating above average, in our view (average ESG rating = 50; refer to Appendix I for our ESG Assessment Scoring).

November 19, 2024



Nestle (Malaysia) (NESZ MK)

CONSUMER STAPLES

	Quantitative Parameters (Score: 47)						
	Particulars	Unit	2021	2022	2023	FNH MK (2023)	
	Scope 1 GHG emissions	tCO2e	60,180	59,428	51,659	39,253	
	Scope 2 GHG emissions	tCO2e	62,305	-	-	35,372	
	Total	tCO2e	122,485	59,428	51,659	74,625	
	Scope 3 GHG emissions	tCO2e	11,489	10,913	19,211	525,973	
F	Total	tCO2e	133,974	70,341	70,870	600,598	
-	GHG intensity (Scope 1, 2 and 3)	kgCO2e/tonne	348	176	193	NA	
	Total energy consumption per tonne	GJ/tonne	3.78	3.60	3.77	NA	
	Total renewable fuel consumption usage	%	3%	5%	7 %	NA	
	% of packaging that is recyclable and reusable	%	74 %	75 %	75%	99%	
	Total waste generated	tonne	26,783	28,264	28,599	11,904	
	% of women in workforce	%	35%	36%	NA	27.0%	
	% of women in management roles	%	51.0%	54.0%	57.6%	46.0%	
S	Lost time injury frequency (LTIF) rate	no.	1.1	0.6	1.3	0	
	No. of students involved in Nestle for healthier kids						
	program	no.	24,986	24,704	25,726	NA	
	No. of products certified with healthier choice logo	no.	36	40	41	82	
	MD/CEO salary as % of reported net profit	%	0.99%	0.88%	0.76%	NA	
G	Board salary as % of reported net profit	%	1.65%	1.55%	1.26%	0.3%	
G	Independent directors on the Board	%	57%	57 %	63%	55%	
	Female directors on the Board	%	43%	43%	38%	36%	

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 NESZ has established a dedicated sustainability committee which is led by its 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?
- 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 sales people, long-term business partners' travel, and the Nestlé National Distribution Centre Carbon Report are 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? All NESZ's facilities in Malaysia have transitioned to 100% renewable energy (solar & hydro) through the Green Energy Programme and Renewable Energy Certificate from TNB and Sarawak Energy respectively. The group diverts most of its manufacture wastes to either animal feed, recycled material, fertiliser; or these wastes are incinerated to generate electricity.
- g) Does carbon offset form part of the net zero/carbon neutrality target of the company?

Target (Score: 100)						
Particulars	Target	Achieved				
Halve GHG emissions by 2030 vs. 2018	50%	6.94%				
Achieve net zero emissions by 2050	0.0	NA				
Reduce specific GHG emissions by 5% p.a.	5%	49%				
100% RSPO-certified sustainable palm oil by 2030	100%	71%				
100% assessed deforestation-free by end of 2022	100%	96%				
100% of packaging to be recyclable and reusable by 2025	100%	75%				
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						
Overall Score: 65	Overall Score: 65					
As per our ESG matrix, Nestle (Malaysia) (NESZ MK) has an overall score of 65.						

ESG score	Weights	Scores	Final Score
Quantitative	50%	47	24
Qualitative	25%	67	17
Target	25%	100	25
Total			65

As per our ESG assessment, NESZ has a dedicated sustainability framework with long-term targets towards carbon neutrality. NESZ's overall ESG score is **65**, which makes its ESG rating **above average**, in our view (average ESG rating = 50; refer to Appendix I for our ESG Assessment Scoring).



QL Resources (QLG MK)

CONSUMER STAPLES

	Quantitative Parameters (Score: 47)							
	Particulars	Unit	FY22	FY23	FY24	LHIB MK (FY23)		
	Scope 1 GHG emissions	tCO2e	23.5	35.5	36.1	NA		
	Scope 2 GHG emissions	tCO2e	75.40	107.30	117.54	NA		
	Total	tCO2e	98.9	142.8	153.6	NA		
	Scope 3 GHG emissions	tCO2e	NA	NA	NA	NA		
	Total	tCO2e	98.9	142.8	153.6	NA		
	GHG intensity (Scope 1 and 2)	tCO2e/MYR m	24.3	26.7	34.5	NA		
Ε	Total energy consumption	m GJ	1043.0	1896.6	2161.7	NA		
	Renewable energy generated	GJ	320,743	841,906	977,507	34,452		
	Water withdrawal intensity	m3/MYR m	595.5	697.0	692.0	NA		
	Hazardous & non-hazardous waste diverted							
	from landfills	%	97.5%	95.3%	95.3%	NA		
	Chicken manure to organic fertilizer	%				NA		
	conversion rate		95.3%	95.0%	91.9%			
	% of women in workforce	%	42.3%	39.0%	39.9%	26.6%		
_	% of women in management roles	%	NA	1.9%	2.0%	NA		
2	Lost time injury frequency (LTIF) rate	number	5.7	3.4	4.1	NA		
	Total training hours per employee	hr	14.1	23.3	23.8	NA		
	MD/CEO salary as % of reported net profit	%	0.9%	1.0%	1.0%	4.6%		
	Board salary as % of reported net profit	%	9.0%	6.1%	3.5%	29.0%		
G	Independent directors on the Board	%	53.8%	53.8%	54.5%	45.5%		
	Female directors on the Board	%	38.5%	38.5%	36.4%	27.3%		

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 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?
- Yes a set of KPIs to assess the performance of Directors and senior management of QLG on sustainability matters relating to ESG aspects was approved by the Board for implementation on 30 May 2024.
- c) Does the company follow the Task Force on Climate-Related Financial Disclosures (TCFD) framework for ESG reporting? Yes.
- e) Does the company have a mechanism to capture Scope 3 emissions which parameters are captured?
- 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 (integrated livestock) 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: 100)		
Particulars	Target	Achieved
Reduce total GHG emissions intensity by 20% by FY26 vs. FY20 baseline	-20%	-7%
8% improvement in LTIFR by FY25 to 4.04	4.04	4.09
Zero fatalities	0	1
16 training hours for executives and 10 training hours for non-executives per year	10-16 hrs	20.85-26.78
Impact		

NA

Overall Score: 65
As per our ESG matrix, QL Resources (QLG MK) has an overall score of 65

ESG score	Weights	Scores	Final Score
Quantitative	50%	47	24
Qualitative	25%	67	17
Target	25%	100	25
Total			65

As per our ESG assessment, QLG has an established framework and internal policies. It would also be beneficial for QLG to publish Scope 3 GHG emissions. QLG's overall ESG score is 65, which makes its ESG rating above average in our view (average ESG rating = 50; refer to Appendix I for our ESG Assessment Scoring).



DXN Holdings (DXN MK)

CONSUMER STAPLES

	Quantitative Parameters (Score: 63)							
	Particulars	Unit	2022	2023	2024	AMW MK (2023)		
	Scope 1 emissions	tonnes	NA	2,755	1,166	NA		
	Scope 2 emissions	tonnes	NA	NA	8,881	NA		
	Total	tonnes	NA	2,755	10,047	0		
	Scope 3 emissions	tonnes	NA	NA	6,731	NA		
	Total	tonnes	NA	2,755	16,778	0		
E	GHG intensity (Scope 1 and 2)	tCO2e/kg	NA	NA	NA	NA		
	Total electricity consumption	GJ	NA	NA	91,051	8,987		
	Total water consumption	m3	NA	281,663	305,297	12,860		
	Total renewable energy as a % of total	%						
	electricity consumption	/0	NA	NA	NA	NA		
	Waste disposal away from landfill	MT	NA	NA	NA	238.9		
	% of women in workforce	%	NA	50.0%	48.8%	NA		
c	% of women in management roles	%	NA	40.0%	NA	NA		
3	Work-related employee injuries	no.	NA	37	35	0		
	Total training hours per employee	hour	NA	NA	27.1	NA		
	Non-compliance to any relevant regulations	no.	NA	0	0	NA		
	MD/CEO salary as % of reported net profit	%	NA	0.3%	0.3%	4.5%		
G	Board salary as % of reported net profit	%	NA	1.56%	1.64%	3.7%		
G	Independent directors on the Board	%	NA	55.6%	62.5%	50.0%		
	Female directors on the Board	%	NA	22.2%	37.5%	37.5%		

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, DXN has a sustainability policy that came into effect on 28 Jun 2022. The sustainability working committee reports to the board of directors.
- 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?
- f) What are the 2-3 key carbon mitigation/water/waste management strategies adopted by the company? Invested MYR4.2m for solar panel installations in its factory in Malaysia to reduce its reliance on non-renewable energy sources. In certain parts of its natural ingredient cultivation farms, DXN uses rainwater, re-circulated water, tube well and sprinkler systems to conserve water.
- g) Does carbon offset form part of the net zero/carbon neutrality target of the company? No.

Target (Score: 67)		
Particulars	Target	Achieved
Maintain zero reports of non-compliance / penalties to environmental laws	0	0
To achieve zero work-related injuries and/or fatalities	0	37
GHG emission reduction target	NA	NA

Impact

NA

Overall Score: 60

We have benchmarked DXN's ESG metrics against that of its closest listed competitor with publicly available comparable metrics - Amway (Malaysia) Holdings (AMW MK, Not Rated). The peer's ESG rating is not assessed and solely exists as a point of reference.

ESG score	Weights	Scores	Final Score
Quantitative	50%	63	31
Qualitative	25%	50	13
Target	25%	67	17
Total			60

As per our ESG assessment, DXN has an established sustainability policy but lacks pertinent long-term targets relating to emission reduction. DXN's overall ESG score is **60**, which makes its ESG rating **above average** in our view (average ESG rating = 50; refer to Appendix I for our ESG Assessment Scoring).



Farm Fresh Berhad (FFB MK)

CONSUMER STAPLES

	Quantitative Parameters (Score: 50)						
	Particulars	Unit	FY22	FY23	FY24	DLM MK (2023)	
	Scope 1 GHG emissions	tCO2e	NA	52,358	61,513	5,957	
	Scope 2 GHG emissions	tCO2e	NA	15,156	25,829	13,747	
	Total	tCO2e	NA	67,514	87,342	19,704	
	Scope 3 GHG emissions	tCO2e	NA	1,378	2,514	1,291	
	Total	tCO2e	NA	68,892	89,856	20,996	
Ε	GHG intensity	tCO2e/tonne of milk	NA	0.44	0.48	0.14	
	Sustainable sources of water consumption	%	12.9%	14.7%	17.8%	NA	
	% of products using fully-recyclable packaging	% of sales	28.0%	33.5%	33.6%	NA	
	Solid waste recycled and removed from waste discharge	m kg	86.4	88.3	146.73	NA	
	Farm dairy effluent recycled and removed from water discharge	m litres	335.0	336.7	417.0	NA	
	% of women in workforce	%	NA	NA	26.5%	33.9%	
S	% of women in management roles	%	25.0%	28.6%	39.0%	44.0%	
3	Lost time injury frequency (LTIF) rate	no.	0.0	0.0	0.0	0.1	
	Total training hours per employee	hr	NA	NA	4.5	32.8	
	MD/CEO salary as % of reported net profit	%	2.0%	2.2%	0.6%	2.1%	
G	Board salary as % of reported net profit	%	2.7%	3.4%	1.6%	2.8%	
_G	Independent directors on the Board	%	57.1%	57.1%	57.1%	50.0%	
	Female directors on the Board	%	28.6%	28.6%	28.6%	75.0%	

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, there is an ESG policy in place. Members of key senior management in charge of group sustainability targets sit within the group's audit and risk management committee.
- b) Is the senior management salary linked to fulfilling ESG targets?
- c) Does the company follow the Task Force on Climate-Related Financial Disclosures (TCFD) framework for ESG reporting?

 No its sustainability statement was prepared in accordance to the Global Reporting Initiative Standards. The group's sustainability practices also align to certain United Nations Sustainable Development Goals.
- e) Does the company have a mechanism to capture Scope 3 emissions which parameters are captured? Yes. It measures the indirect emissions from business travel by car, train, flights, as well as employee commuting.
- f) What are the 2-3 key carbon mitigation/water/waste management strategies adopted by the company?

FFB has saved c.619m litres of water through rainwater harvesting and tube well pumping. 34% of group product sales utilise fully sustainably sourced recyclable packaging. Animal wastes are treated and productively repurposed to reduce the potential release of nitrous oxide from untreated waste matter.

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

Target (Score: 75)		
Particulars	Target	Achieved
Increase the utilisation of groundwater and surface water usage by 20% p.a.	20%	24%
Increase the volume of farm dairy effluent recycled and removed from waste discharge by a min. 8% p.a.	8%	24%
Increase the amount of solid waste recycled and removed from waste discharge by 10% p.a.	10%	66.2%
Achieve 5% reduction in group-wide emission intensity annually	-5%	9 %
Impact		
NA		
Overall Score: 60		

ESG score	Weights	Scores	Final Score
Quantitative	50%	50	25
Qualitative	25%	67	17
Target	25%	75	19
Total			60

As per our ESG matrix, Farm Fresh (FFB MK) has an overall score of 60.

As per our ESG assessment, FFB has an established framework, internal policies, and tangible mid/long-term targets. FFB's overall ESG score is **60**, 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 Msia (CAB MK)

CONSUMER STAPLES

	Quantitative Parameters (Score: 43)							
	Particulars	Unit	2021	2022	2023	HEIM MK (2023)		
	Scope 1 GHG emissions	tCO2e	NA	4,824	4,346	6,375		
	Scope 2 GHG emissions	tCO2e	NA	9,892	9,884	10,600		
	Total	tCO2e	NA	14,716	14,230	16,975		
E	Scope 3 emissions	tCO2e	NA	NA	NA	1,310		
-	Total	tCO2e	NA	14,716	14,230	18,285		
	Water usage efficacy	hl/hl	4.00	3.50	3.3	3.4		
	Share of renewable energy usage	%	NA	100%	100%	100%		
	Electricity usage	kWh/hl	10.6	10.0	11.0	9.4		
	Total waste generated	Tonne	NA	25,500	25,743	32,632		
	Water recovered and reused	%	23,039	66,424	19,740	NA		
	% of women in workforce	%	25.7%	NA	NA	30.0%		
S	% of women in management roles	%	35.0%	38.0%	63.0%	38.0%		
	Lost-time incident rate (LTIR)	Rate	0.0	0.0	0.4	0.4		
	MD/CEO salary as % of reported net profit	%	1.9%	1.2%	1.5%	1.8%		
G	Board salary as % of reported net profit	%	2.0%	1.4%	1.7%	2.0%		
G	Independent directors on the Board	%	43%	43%	43%	43%		
	Female directors on the Board	%	29%	29%	29%	43%		

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. 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? No.
- f) What are the 2-3 key carbon mitigation/water/waste management strategies adopted by the company?
- CAB has made efforts to reduce its emission through various methods, including the purchase of green technologies. The group replaced 18 Liquid Propane Gas forklifts with fully electric ones. It also uses zero coal, using natural gas and biogas for its wastewater treatment plant instead. In terms of water, CAB implemented reverse osmosis technology in its water treatment plant, enabling the recycling of 13% of water loss. CAB contributes zero waste to landfill since November 2022.
- 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%	73%			
30% reduction in beer-in-hand carbon footprint by 2030 vs 2015 baseline	30%	33%			
Zero lost-time accidents (LTA) by 2030 (days)	0	0			
Water usage efficacy of 2.0 hectolitres per hectolitre of beer produced by 2030	2.0	3.3			
Impact					
NA					
Overall Score: 50					

ESG score	Weights	Scores	Final Score
Quantitative	50%	43	21
Qualitative	25%	50	13
Target	25%	100	25
Total			59

As per our ESG matrix, Carlsberg Malaysia has an overall score of 59.

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 59, which makes its ESG rating above average in our view (average ESG rating = 50; refer to Appendix I for our ESG Assessment Scoring).



Leong Hup International (LHIB MK)

CONSUMER STAPLES

	Quantitative Parameters (Score: 20)						
	Particulars	Unit	FY21	FY22	FY23	QLG MK (FY24)	
	Scope 1 emissions	k tCO2e	NA	NA	NA	36,106	
	Scope 2 emissions	k tCO2e	NA	NA	NA	117,539	
	Total	k tCO2e	NA	NA	NA	153,645	
	Scope 3 emissions	k tCO2e	NA	NA	NA	NA	
Ε	Total	k tCO2e	NA	NA	NA	153,645	
_	GHG intensity (Scope 1 and 2)	tCO2e/MYRm rev	NA	NA	NA	34.5	
	Total energy consumption	GJ	NA	NA	NA	2,161,707	
	Renewable energy generated	MWh	NA	5,492	9,570	271,530	
	Total volume of water used	Megalitre	NA	NA	3,849	3,086	
	Total waste generated	MT	NA	NA	NA	2,124	
	Chicken manure to fertiliser conversion rate	%	NA	NA	NA	91.9%	
	% of women in workforce	%	26.6%	27.0%	25.0%	39.9%	
S	% of women in management roles	%	27.3%	20.0%	17.8%	7%	
3	Lost time injury frequency (LTIF) rate	per m hrs	NA	NA	0.0	4.09	
	Total training hours per employee	hour	NA	15.1	10.2	23.8	
	MD/CEO salary as % of reported net profit	%	4.6%	3.2%	2.8%	1.0%	
G	Board salary as % of reported net profit	%	29.0%	17.6%	14.4%	3.5%	
_G	Independent directors on the Board	%	45.5%	45.5%	45.5%	54.5%	
	Female directors on the Board	%	27.3%	27.3%	27.3%	36.4%	

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, LHIB's sustainability committee was formed on 28 Nov 2023 and is chaired by a non-independent executive director to oversee the group's sustainability strategy and ESG initiatives.

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

No.

- c) Does the company follow the Task Force on Climate-Related Financial Disclosures (TCFD) framework for ESG reporting?
- e) Does the company have a mechanism to capture Scope 3 emissions which parameters are captured?
- f) What are the 2-3 key carbon mitigation/water/waste management strategies adopted by the company?

LHIB has implemented a responsible framework on hazardous and non-hazardous waste management across its group operations. It has set up onsite waste water treatment plants across its countries of operations, with the exception of Singapore, where waste water treatment is managed by third party service providers. LHIB also uses a closed house system for flock management and better biosecurity.

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

Target (Score: 0)		
Particulars	Target	Achieved
LHIB currently does not have any formal ESG and net zero targets	NA	NA

Impact

NA

Overall Score: 18

As per our ESG matrix, Leong Hup International (LHIB MK) has an overall score of 18.

ESG score	Weights	Scores	Final Score
Quantitative	50%	20	10
Qualitative	25%	33	8
Target	25%	0	0
Total			18

As per our ESG assessment, LHIB lacks transparency in key ESG metrics and long-term emission targets. For these reasons, LHIB's overall ESG score is 18, which makes its ESG rating below average, in our view (average ESG rating = 50; refer to Appendix I for our ESG Assessment Scoring).

Sports Toto (SPTOTO MK)

GAMING

	Quantitative Parameters (Score: 29)						
	Particulars	Unit	FY6/22	FY6/23	FY6/24	MAG MK (2023)	
	Scope 1 emissions	tCO2e	1,371	2,887	2,437	N/A	
	Scope 2 emissions	tCO2e	3,098	3,480	3,519	N/A	
	Total	tCO2e	4,469	6,367	5,956	N/A	
	Scope 3 emissions	tCO2e	N/A	3,676	1,971	N/A	
Ε	Total	tCO2e	4,469.0	10,043.0	7,927.0	N/A	
	Emission intensity as % of revenue	tCO2e/MYRm	0.9	1.0	0.9	N/A	
	Energy consumption	TJ	58	68	64	5	
	Water consumption	m3	49,443	59,849	61,248	7,759	
	Waste generated	tonnes	27,528	15,093	312	N/A	
	% of women in workforce	%	35.6%	37.1%	38.9%	51.0%	
	% of women in managerial roles	%	36.6%	38.4%	36.7%	40.0%	
	Employee attrition rate	%	20.3%	29.4%	12.6%	N/A	
S	Employee training per employee	hours	0	2	5	N/A	
	% employees trained in responsible gaming	%	N/A	N/A	N/A	90.0%	
	Community investment as % of core net profit	%	0.9%	1.7%	1.2%	1.2%	
	Cases of regulatory non-compliance	number	-	-	-	N/A	
	Board salary as % of core net profit	%	5.1%	3.8%	4.6%	2.8%	
G	Independent directors on the Board	%	50.0%	42.9%	42.9%	42.9%	
G	% of profits returned to shareholders	%	72.3%	53.5%	61.5%	68.8%	
	Female directors on the Board	%	12.5%	14.3%	14.3%	28.6%	

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. The Sustainability Working Group reports to the Sustainability Committee which reports directly to the Board Of Directors.
- b) Is the senior management salary linked to fulfiling ESG targets?
- c) Does the company have a policy in place for Responsible Gambling and what steps it is taking to reduce risks? Yes. SPTOTO is a member of the World Lottery Association which advocates gambling safety. Displays "Play Responsibly" tagline in promotional materials, shares Responsible Gambling (RG) tips on social media and its website, distributes RG handbook to stakeholders, established an online self-assessment tool to help gamblers understand their gambling habits, require all employees
- e) Does the company have a mechanism to capture Scope 3 emissions which parameters are captured? Yes. Business travel and employee commuting.

to undergo RG training and works closely with Gambler Rehab Centre Malaysia to offer rehabilitation services.

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

 Minimise receipt printing, reduce size of tickets, transition to LED bulbs, replace old air-conditioners, installed solar panels and aims to set baseline and targets on CO2 emissions reductions.
- g) Does carbon offset form part of the net zero/carbon neutrality target of the company?

 No, as it does not have a large environmental footprint. However, it has a tree planting target.

61

Target (Score: 83)		
Particulars	Target	Achieved
Greehouse gas reduction by 2025-2030	N/A	N/A
Feed ≥ 400 needy families p.a.	400	N/A
Reduce medical claims by 10%	10%	N/A
Benefit 20 primary schools p.a.	20	N/A
≥ 30% of female representation in workforce	30%	39%
Plant 80 trees p.a.	80	N/A
Impact		
NA		
Overall Score: 61		

ESG score Weights **Scores** Final Score 29 15 Quantitative 50% 100 25 Qualitative 25% **Target** 25% 83 21

Total

As per our ESG matrix, Sports Toto (SPTOTO MK) has an overall score of 61.

As per our ESG assessment, SPTOTO has an established framework, internal policies, and tangible mid/long-term targets. SPTOTO'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).

Genting Bhd (GENT MK)

GAMING

	Quantitative Parameters (Score: 29)						
	Particulars	Unit	2021	2022	2023	LVS US (2023)	
	Scope 1 emissions	m tCO2e	4.2	3.9	4.3	0.1	
	Scope 2 emissions	m tCO2e	0.2	0.3	0.3	0.3	
	Total	m tCO2e	4.5	4.2	4.6	0.4	
E	Scope 3 emissions	m tCO2e	0.0	0.1	0.1	1.3	
_	Total emissions	m tCO2e	4.5	4.2	4.6	1.7	
	Water consumption	m m3	847,945	803,435	871,170	1,310	
	Waste generated	m MT	1.7	1.3	1.5	0.1	
	% of waste diverted away from landfill	%	95%	94%	97%	29%	
	% of women in workforce	%	33%	35%	33%	49%	
	% of women in management roles	%	N/A	N/A	N/A	43%	
_	Investment in community projects	% of net profit	N/M	N/M	2.1%	0.6%	
S		. %	79%	72%	76%	76%	
	Employee training per employee - holding company	hours	15	6	11	90	
	Lost time incident rate	incident	2.3	1.8	2.1	2.7	
	Employee attrition rate	%	17%	31%	N/A	0.1	
	Board salary	% of net profit	N/M	N/M	19%	N/M	
	Independent directors on the Board	%	63%	63%	56%	50%	
G		%	13%	13%	11%	25%	
	Distribution to shareholders	% of net profit	N/M	N/M	62%	25%	
	Investment in loss generating related companies	MYRm	774.2	440.2	-	N/A	

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?

 GENT has an ESG policy but it does not have a standalone ESG Committee. Sustainability Working Teams from Genting Singapore (GENS),
 Genting Malaysia (GENM), Genting Plantations (GENP), Genting Energy and Resorts World Las Vegas report to the GENT Executive
 Committee. The GENT Executive Committee does conduct meetings which deliberates on ESG matters alone.
- b) Is the senior management salary linked to fulfilling ESG targets?
- c) Does the company follow the Task Force on Climate-Related Financial Disclosures (TCFD) framework for ESG reporting? No. Only GENS follows the Task Force on Climate-Related Financial Disclosures (TCFD) framework for ESG reporting.
- 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 and a lagoon that harvests rainwater. It also has plans to quadruple the number of solar panels. GENM is upgrading water pumps, hot water heating systems and compressor systems, and installing rainwater harvesters. GENS and GENM have eliminated the use of single use plastics. GENP has a no deforestation, no peat, no exploitation and zero burning policy.
- g) Does carbon offset form part of the net zero/carbon neutrality target of the company?

Yes. GENS is developing nature-based carbon offset strategy.

Target (Score: 100)					
Particulars	Target	Achieved			
GENS - Reduce carbon emission intensity by 30% by 2030 (2015 as baseline year)	30%	29%			
GENS - Reduce intensities of energy consumption and municipal water withdrawal by 30%, and operational waste-to-landfill by 50%	30-50%	37%			
GENS - Quadruple renewable energy and procure from low carbon sources	4.0	WIP			
GENS - Green 75% of buildings by GFA by 2030	75 %	67%			
GENS - 100% electric transportation by 2030	100%	WIP			
GENS - Quadruple EV charging stations by 2030 (2015 as baseline year)	4.0	WIP			
GENS - Exceed 500,000 in cumulative volunteer hours to positively impact the community	500,000	473,558			
GENS - Support local business with more than 90% biddable spend	90%	86%			
GENS - Carbon neutrality by 2030	Net 0	N/A			
GENM/RWG - >90% of procurement expenditure allocated to local sources by FY24E	>90%	75%			
GENM/RWG - > 70% of local procurement expenditure channeled to SMEs by FY24E	>70%	N/A			
GENM/RWG - Procurement from >100 micro and small-sized suppliers by FY24E	>100	N/A			
GENM/RWG - Upskilling >100 small and medium-sized enterprises through structured training and programmes by					
FY24E	>100	N/A			
GENM/RWG - To conduct >150 health and safety programmes to prevent accidents and incidents by FY24E	N/A	N/A			
GENM/RWG - Zero fatalities by FY24E	N/A	N/A			
GENM/RWG - All employees are required to attend ≥16 hours of training annually as part of their ongoing					
development by FY24E	N/A	N/A			
GENP - Carbon neutrality by 2030	Net 0	N/A			
GENP - Commitment to No Exploitation adopted in the entire supply chain by 2025	-	N/A			
GENP - Zero fatality	-	3			
GENP - Traceability to plantation (FFB suppliers) by 2026	100.0%	99.8%			
GENP - Traceability to plantation (external mills) by 2030	100.0%	84.1%			
Group - Carbon neutral by 2050	Net 0	N/A			

Impact
NA NA
Overall Score: 52
As per our ESG matrix, Genting (GENT MK) has an overall score of 52.

ESG score	Weights	Scores	Final Score
Quantitative	50%	29	15
Qualitative	25%	50	13
Target	25%	100	25
Total			52

As per our ESG assessment, GENT has an established framework, internal policies, and tangible mid/long-term targets. GENS' 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).



Mag	gnum Berhad (MAG MK)					GAMING			
	Quantitative Parameters (Score: 24)								
						SPTOTO MK			
	Particulars	Unit	FY21	FY22	FY23	(FY6/24)			
	Scope 1 emissions	tCO2e	N/A	N/A	N/A	2,437			
	Scope 2 emissions	tCO2e	N/A	N/A	N/A	3,519			
	Total	tCO2e	N/A	N/A	N/A	5,956			
	Scope 3 emissions	tCO2e	N/A	N/A	N/A	1,971			
Ε	Total	tCO2e	N/A	N/A	N/A	7,927.0			
	Emission intensity as % of revenue	tCO2e/MYRm rev	N/A	N/A	N/A	0.9			
	Energy consumption	MWh	N/A	N/A	1,353	17,778			
	Water consumption	m3	N/A	N/A	7,759	61,248			
	Waste generated	MT	N/A	N/A	N/A	312			
	% of women in workforce	%	48.0%	47.4%	51.0%	38.9%			
	% of women in managerial roles	%	38.8%	38.1%	40.0%	36.7%			
	Employee attrition rate	%	N/A	N/A	N/A	12.6%			
S	Employee training per employee	hours	N/A	N/A	N/A	5			
	% employees trained in responsible gaming	%	80.0%	95.0%	90.0%	N/A			
	Community investment as % of core net profit	%	5641.0%	2.5%	1.2%	1.2%			
	Cases of regulatory non-compliance	number	N/A	N/A	N/A	-			
	Board salary as % of core net profit	%	7205.1%	3.2%	2.8%	4.6%			
G	Independent directors on the Board	%	33.3%	50.0%	42.9%	42.9%			
	% of profits returned to shareholders	%	55276.1%	71.5%	68.8%	61.5%			
	Female directors on the Board	%	16.7%	28.6%	28.6%	14.3%			

Qualitative Paramaters (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. MAG has a Sustainability Framework and Procedures. It has a Sustainability Officer that reports to the ESG Committee, that in turn, ultimately reports to the Group Risk Management Committee.
- b) Is the senior management salary linked to fulfiling ESG targets? Yes.
- c) Does the company have a policy in place for Responsible Gambling and what steps is it is taking to reduce risks?

 Yes. MAG's subsidiary has spearheaded the responsible gaming practices being the first in obtaining all the major certifications of World Lottery Association (WLA).
- e) Does the company have a mechanism to capture Scope 3 emissions which parameters are captured?
- f) What are the 2-3 key carbon mitigation/water/waste management strategies adopted by the company?

 Replacing conventional bulbs with LED bulbs, recycling paper, reducing paper usage, phasing out non-energy efficient equipment and planting trees.
- g) Does carbon offset form part of the net zero/carbon neutrality target of the company?

 No, as MAG is not a major polluter. It has planted 1,200 trees since FY22 and has a target to plant 300 trees annually.

Target (Score: 86)						
Particulars	Target	Achieved				
Greehouse gas reduction by 2025-2030	N/A	N/A				
Zero workplace fatality	-	-				
Train 70% of employees annually	70%	75%				
Achieve a workforce representation of ≥40% women	40%	51%				
Install renewable energy sources at 100% of owned office buildings by 2025	100%	44%				
Recycle waste of 3,000kg annually	3,000	5,251				
Plant 300 trees annually	300	700				
Impact						
ŇA						
Overall Score: 50						
As per our ESG matrix, Magnum (MAG MK) has an overall score of 50.						

ESG score	Weights	Scores	Final Score
Quantitative	50%	24	12
Qualitative	25%	67	17
Target	25%	86	21
Total			50

As per our ESG assessment, MAG has an established framework and internal policies but lacks disclosure. MAG's overall ESG score is 50, which makes its ESG rating average, in our view (average ESG rating = 50; refer to Appendix I for our ESG Assessment Scoring).



Genting Malaysia (GENM MK)

GAMING

	Quantitative Parameters (Score: 24)							
	Particulars	Unit	2021	2022	2023	LVS US (2023)		
	Scope 1 emissions	tCO2e	19,684	29,797	39,206	119,588		
	Scope 2 emissions	tCO2e	116,355	166,643	178,298	312,144		
	Total	tCO2e	136,039	196,440	217,504	431,732		
-	Scope 3 emissions	tCO2e	N/A	N/A	N/A	1,307,370		
_	Total	tCO2e	136,039	196,440	217,504	1,739,102		
	Scope 1 & 2 emissions intensity	kgCO2e/customer	16	8	7	N/A		
	Energy consumption intensity	MJ/customer	134	81	89	N/A		
	Water consumption intensity	li/customer	516	279	272	N/A		
	% of waste diverted away from landfill	%	18%	13%	11%	29%		
	% of women in workforce	%	40%	40%	39%	49%		
	% of women in management roles	%	41%	40%	41%	43%		
S	Community investments as % of reported net profit	% of net profit	N/M	N/M	2.0%	0.6%		
3	% of local suppliers	%	92%	84%	75%	76%		
	Employee attrition rate	%	28%	30%	28%	13%		
	Employee training hours per employee	hours	8	8	25	90		
	Board salary as % of reported net profit	%	N/M	N/M	16%	N/M		
	Independent directors on the Board	%	73%	75%	# 36%	50%		
G	Female directors on the Board	%	10%	17%	# 18%	25%		
	Distribution to shareholders	% of net profit	N/M	N/M	195%	25%		
	Investment in loss generating related companies	MYRm	774.2	440.2	-	N/A		

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. 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?
- c) Does the company follow the Task Force on Climate-Related Financial Disclosures (TCFD) framework for ESG reporting? No, but plans to by FY25E.
- e) Does the company have a mechanism to capture Scope 3 emissions which parameters are captured?
- 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?

Target (Score: 94)		
Particulars	Target	Achieved
RWG - 100% of designated employees to complete PDPA awareness, ABAC policy, IT cybersecurity and AMLA training by FY24E	100%	N/A
RWG - no breach to key terms of casino licenses; full compliance to PDPA, AMLA and ABAC policies; and no material cybersecurity breaches by FY24E	N/A	N/A
RWG - Crockfords Hotel net promoter score >30% by FY24E	>30%	48.9
RWG - theme parks net promoter score >30% by FY24E	>30%	53.5
RWG - >90% of procurement expenditure allocated to local sources by FY24E	>90%	75%
RWG - >70% of local procurement expenditure channeled to SMEs by FY24E	>70%	N/A
RWG - Procurement from >100 micro and small-sized suppliers by FY24E	>100	N/A
RWG - Upskilling >100 small and medium-sized enterprises through structured training and programmes by FY24E	>100	N/A
RWG - To conduct ≥6 S.AV.E environment projects annually to promote environmental protection among employees by FY24E	N/A	N/A
RWG - To conduct >150 health and safety programmes to prevent accidents and incidents by FY24E	N/A	N/A
RWG - Zero fatalities by FY24E	N/A	N/A
RWG - To conduct >24 engagement and wellbeing programmes to enhance the workplace and living environment by FY24E	N/A	N/A
RWG - All employees are required to attend ≥16 hours of training annually as part of their ongoing development by FY24E	N/A	N/A
RWG - To introduce ≤5 community and capacity building programmes for underprivileged youths by FY24E	N/A	N/A
RWG - To achieve ≥80 youth participation in the Group's engagement programmes by FY24E	N/A	N/A
RWG - To recruit 30% of youths participating in the Group's engagement programmes into GENM's workforce by FY24E	N/A	N/A
Carbon neutral	N/A	N/A
Impact		
NA		
Overall Score: 48		

ESG score	Weights	Scores	Final Score
Quantitative	50%	24	12
Qualitative	25%	50	13
Target	25%	94	24
Total			48

As per our ESG matrix, Genting Malaysia (GENM MK) has an overall score of 48.

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, follow TCFD framework for ESG reporting and adopt a net zero/carbon neutral policy. GENM's overall ESG score is 48, which makes its ESG rating slightly below average, in our view (average ESG rating = 50; refer to Appendix I for our ESG Assessment Scoring).

^{*} denotes annualised figures; # as at Jan 2024

KPJ Healthcare (KPJ MK)

HEALTHCARE

	Quantitative Parameters (Score: 42)							
	Particulars	Unit	FY21	FY22	FY23	IHH MK (FY23)		
	Scope 1	tCO2e	11,713	21,327	21,318	80,528		
	Scope 2	tCO2e	123,119	135,036	141,632	210,111		
	Total	tCO2e	134,831	156,363	162,950	290,639		
	Scope 3	tCO2e	5,993	13,021	9,549	18,846		
	Total	tCO2e	140,825	169,384	172,498	309,485		
Е	GHG Emissions intensity (Scope 1 and 2)	kgCO2e/m2	160.31	164.99	171.94	NA		
-	Clinical waste per patient	kg/x	0.49	0.63	0.62	13.97		
	Water consumption per patient	m3/x	0.52	0.59	0.56	1.78		
	Electric consumption intensity	kWh/m2	204.9	197.1	206.1	179.1		
	Total energy consumption	GJ	632,045	700,352	729,614	2,227,572		
	Non-hazardous waste diverted away from disposal	%	4.8%	3.4%	8.1%	5.1%		
	% of GHG emissions from renewable energy	%	NA	NA	6.9%	2.0%		
	% of women in workforce	%	78%	78%	79%	68.0%		
	% of women in senior management roles	%	27%	48%	42%	42.5%		
c	Lost time incident rate (LTIR)	rate	0.00	0.00	0.00	13.40		
د	Average training hours	hours	30.96	35.34	39.18	14.86		
	Data privacy breach incident	number	0.00	0.00	0.00	0.00		
	Customer Satisfaction Index	%	92%	93%	93%	NA		
	Board salary as % of net profit	%	3.4%	1.0%	0.3%	0.7%		
G	MD/CEO salary as % of net profit	%	8.5%	3.4%	1.6%	1.0%		
0	Independent directors on the Board	%	46%	50%	45%	36%		
	Women directors on the Board	%	18%	27%	18%	20%		

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. KPJ's sustainability targets are outlined in their KPJ Sustainability Framework and Sustainability Roadmap 2022-2025. Sustainability at KPJ is governed by the Risk, Sustainability and Governance Committee (RSGC).
- b) Is the senior management salary linked to fulfilling ESG targets?
- Not yet. KPJ targets to incorporate sustainability performance metrics and targets into their corporate scorecard by 2024.
- c) Does the company follow TCFD framework for ESG reporting?
- Yes, KPJ has fully adopted the recommended of the TCFD framework and is currently developing their adaptation and mitigation plans on dealing with climate risks.
- d) Does the company have a mechanism to capture Scope 3 emissions which parameters are captured?
- Yes. Scope 3 captures indirect emissions across KPJ's value chain (e.g. purchased goods, employee commuting).
- e) What are the 2-3 key carbon mitigation/water/waste management strategies adopted by the company?
- (i) KPJ has signed a SARE agreement with target to fully install rooftop solars at 5 pilot hospitals within Peninsular Malaysia by end-2024; (ii) 10 of KPJ's TNB accounts have subscribed to the Green Energy Tariff (GET) programme and have recorded an 8.02% reduction in carbon footprint generated by electricity since mid-February 2023; and (iii) Installed rainwater harvesting systems at 5 KPJ hospitals within the Central Region.
- f) Does carbon offset form part of the net zero/carbon neutrality target of the company?
- Yes. Their decarbonisation strategy to offset Scope 2 emissions includes sourcing RE through participation in the GET programme.

Target (Score: 100)		
Particulars	Target	Achieved
Obtains 10% of energy from renewable sources by 2025	10%	7%
Reduce water usage by 20% per patient by 2025 against 2021 baseline	20%	-5% YoY
Reduce 25% of GHG emissions per patient by 2025 against 2021 baseline	25%	+/-0%
Increase the number of customers with access to guidance and/or services on prevention and general wellness by at least 20% by 2025 from 2021 baseline	20%	+33% YoY
Increase the number of customers with access to home or short-term aged care services (i.e., restorative care, transition care, respite care) by at least 10% by 2025 from 2021 baseline	10%	-6%
Reduce water usage by 20% per patient by 2025 against 2021 baseline	10%	7%
Impact		
NA		
Overall Score:		
As per our ESG matrix, KPJ Healthcare (KPJ MK) has an overall score of 67.		

ESG score	Weights	Scores	Final Score
Quantitative	50%	42	21
Qualitative	25%	83	21
Target	25%	100	25
Total			67

As per our ESG assessment, KPJ has an established framework, internal policies, and tangible mid/long-term targets. KPJ'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).



Optimax Holdings (OPTIMAX MK)

HEALTHCARE

	Quantitative Parameters (Score: 67)					
	Particulars	Unit	2021	2022	2023	ISEC SP (FY23)
	Scope 1	tCO2e	NA	NA	NA	0.3
	Scope 2	tCO2e	NA	NA	NA	1,173.6
	Total	tCO2e	NA	NA	NA	1,173.9
	Scope 3	tCO2e	NA	NA	NA	NA
	Total	tCO2e	NA	NA	NA	NA
Ε	Scope 1 & 2 CO2 intensity	tCO2e/MYR'm rev	NA	NA	NA	6.4
	Clinical waste generated per patient	Kg/pat.	NA	NA	NA	0.04
	Water consumption	cu m	NA	NA	943	NA
	Water consumption per employee	cu m/empl	NA	NA	3.3	NA
	Energy consumption	MWh	NA	NA	1,918	1,820
	Electricity Consumption/employee	kWh/empl	NA	NA	6,659	6,571
	% of women in workforce	%	78%	76%	77%	83%
	% of women in managerial roles	%	NA	NA	55%	NA
c	Proportion of spending on local suppliers	%	NA	NA	100%	NA
3	Avg. training hours per employee	hours	NA	NA	4.8	8.6
	Cybersecurity and data privacy breaches	number	NA	0	0	0
	Lost time incident rate	rate	NA	NA	0	0
	Board salary as % of net profit	%	7.0%	7.2%	10.5%	7.8%
G	MD/CEO salary as % of net profit	%	4.2%	4.3%	5.1%	9.6%
9	Independent directors on Board	%	50%	50%	50%	33%
	Women directors on Board	%	33%	38%	38%	17%

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, OPTIMAX has a Sustainability Policy focusing on the Economic, Environmental and Social impact of its business. The Board oversees the sustainability strategy.

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

Yes, OPTIMAX's performance evaluation of the Board and Senior Management includes a review of the Group's material sustainability risks and opportunities.

c) Does the company have stringent policies on ensuring the highest quality for its medical operations and avoiding any medical malpractice and reputation risk.

Yes. All of its surgeons are medical practitioners licensed by the Malaysian Medical Council and registered under the National Specialist Register. It has also received recognition from certification bodies worldwide, most notably the International Organization of Standardization ("ISO") certification, which is held only by a select few top-tier eye laser centres globally.

d) Does the company engage in CSR and community events & projects?

Yes, OPTIMAX regularly offers free eye check-ups to the public, elderlies, and those in need. Since 2021, they've carried out 124 charities, contributed MYR56,760 in donations, impacting more than 845 individuals.

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

In FY23, OPTIMAX started to separate regional consumption of electricity and water to better pinpoint areas for improvement/conservation. Separately, OPTIMAX has also enlisted 3rd-party vendors certified in ISO 14001 to analyse the composition of waste generated and handle the waste disposal processes across its operations.

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

OPTIMAX is in the midst of establishing a framework for data collection on Scope 1, Scope 2, and Scope 3 emissions, and has expressed its commitment towards embarking on energy efficiency and carbon reduction initiatives.

	Target (Score: 0)					
Particulars		Target	Achieved			
No target		0%	0%			
	Impact					
	NA					
	Overall Score:					
As per our ESG matrix, Optimax Holding	As per our ESG matrix, Optimax Holdings (OPTIMAX MK) has an overall score of 54.					

ESG score	Weights	Scores	Final Score
Quantitative	50%	67	34
Qualitative	25%	83	21
Target	25%	0	0
Total			54

As per our ESG assessment, OPTIMAX has an established sustainability policy and sufficient internal policies & SOPs to ensure the best medical practices. OPTIMAX'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).



Hartalega (HART MK)

INDUSTRIALS

	Quantitative Parameters (Score: 44)						
	Particulars	Unit	FY22	FY23	FY24	TOPG MK (FY23)	
	Scope 1 emissions	tCO2e	521,681	378,118	394,037	273,483	
	Scope 2 emissions	tCO2e	658,386	114,517	62,039	152,403	
	Total	tCO2e	1,180,067	492,635	456,076	425,886	
	Scope 3 emissions	tCO2e	NA	5,383.0	4,679.0	6,033.0	
	Total	tCO2e	1,180,067	498,018	460,755	431,919.0	
	GHG intensity (Scope 1 and 2)	tCO2e/rev MYRm	149.6	204.4	248.2	188.7	
		kWh/1,000 pcs					
Е	Electricity consumption intensity	gloves	8.1	9.2	5.2	9.4	
-		cu. M/1,000 pcs					
	Water consumption intensity	gloves	0.1	0.1	0.1	0.4	
		MMBTU/1,000 pcs					
	Natural gas consumption intensity	gloves	0.3	0.3	0.4	0.3	
		tCO2/1,000 pcs					
	Carbon emission intensity	gloves	0.0	0.0	0.0	0.02	
	Total waste generated intensity	kg/1,000 pcs gloves	0.5	0.5	0.5	0.2	
	Non-hazardous waste recycled	%	70.6	71.2	76.8	73.3	
	Proportion of women in the workforce	%	37.0	37.0	36.0	28	
	Women in Sr management	%	36.0	34.0	38.0	52.0	
S	Proportion of locals as new hires	% (avg)	45.0	12.0	15.0	94	
	Lost time injury frequency (LTIF) rate	Rate	0.5	0.5	0.3	0.81	
	Training hours per employee	number	43.2	19.3	13.1	43.9	
	MD/CEO salary as % of reported net profit	%	0.1	1.8	3.6	-0.2	
G	Board salary as % of reported net profit	%	0.3	5.2	11.6	-1.3	
	Independent directors on the Board	%	56	56	44	58	
	Female directors on the Board	%	33	33	30	42	

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 -Sustainability governance is led by the Board's Risk Management and Sustainability Committee. Supported by the Sustainability Working Committee (SWC), chaired by the CFO and including members of the C-Suite and Senior Management, the

Sustainability Working Committee (SWC), chaired by the CEO and including members of the C-Suite and Senior Management, the SWC drives ethical business conduct and integrates ESG practices.

- b) Is the senior management salary linked to fulfilling ESG targets?
- c) Does the company follow the Task Force of Climate Related Disclosures (TCFD) framework for ESG reporting? No, but HART will align its climate-related disclosures with TCFD by 2025.
- d) Does the company have a mechanism to capture Scope 3 emissions which parameters are captured? Yes, Scope 3 captures business travel and employee commuting.
- e) What are the 2-3 key carbon mitigation/water/waste management strategies adopted by the company?

 Energy efficiency: Established two cogeneration power plant to improve energy efficiency. Water mgmt: Installing water ultrafiltration system which allows HART to utlise treated water (from local rivers) at production site and reducing dependency on municipal water sources. Waste mgmt: Invested over MYR48m in enhancing state-of-the-art wastewater treatment at its plants.
- f) Does carbon offset form part of the net zero/carbon neutrality target of the company?

As per our ESG matrix, Hartalega Holdings Berhad (HART MK) has an overall score of 64.

Target (Score: 100)		
Particulars	Target	Achieved
Established a 5% reduction target for water consumption intensity by FY2026, with FY2021 as a baseline	11%	13%
Cut carbon emissions intensity from 0.0232 to 0.0172 tonnes CO2 per 1,000 pieces of gloves by FY26, using FY23 as a baseline	0.0172	0.13
Manufacturing plants are certified with ISO 45001:2018	100%	100%
Zero Cost Recruitment Policy	100%	100%
Impact		
NA		
Overall Score: 64		

ESG score	Weights	Scores	Final Score
Quantitative	50%	44	22
Qualitative	25%	67	17
Target	25%	100	25
Total			64

As per our ESG assessment, HART has an established framework, internal policies, and tangible mid/long-term targets but needs to make headway in improving its quantitative "E" metrics YoY. HART's overall ESG score is 64, which makes its ESG rating above average in our view (average ESG rating = 50; refer to Appendix I for our ESG Assessment Scoring).

Press Metal Aluminium (PMAH MK)

INDUSTRIALS

	Quai	ntitative Parameters ((Score: 26)			
	Particulars	Unit	2021	2022	2023	NHY NO (2023)
	Scope 1 emissions	m tCO2e	2.1	2.2	2.2	6.0
	Scope 2 emissions	m tCO2e	2.7	3.0	2.1	3.4
	Total	m tCO2e	4.8	5.2	4.3	8.7
	Scope 3 emissions	m tCO2e	7.3	7.8	7.5	13.4
	Total	m tCO2e	12.1	13.0	11.8	36.6
	GHG intensity (Scope 1 and 2)	tCO2e/t of	4.2	4.1	3.3	0.6
	E	production	42.7	42.2	42.2	0.0
E	Energy intensity	GJ/t of production	42.6	43.3	43.2	8.0
	Share of renewable energy usage	%	0.07	0.06	0.06	41.4
	Recycled Aluminium Intensity	, , , , , , , ,	10.2%	7.5%	8.1%	15.0%
	Water withdrawal intensity	cu m/t of production	3.0	2.4	2.2	N/A
	Waste diverted away from landfill	%	94.5%	90.2%	93.2%	76.8%
	NOx	tonnes	5.3	5.6	11.8	7.4
	SOx	tonnes	6,010.2	7,437.4	7,645.1	22,042.0
	Partical Matters (PM)	tonnes	204.6	313.4	312.5	N/A
	% of women in workforce	%	12.4%	13.5%	13.3%	23.0%
S	% of women in management roles	%	28.2%	26.7%	30.5%	20.0%
3	Training hours per employee	hours	12.5	49.2	46.8	N/A
	Lost time injury frequency (LTIF) rate	LTI/1m hours	4.3	3.3	2.7	2.4
	MD/CEO salary as % of reported PATAMI	%	0.2%	0.1%	0.2%	N/A
	Board remuneration as % of reported PATAMI	%	1.4%	0.9%	1.1%	0.2%
G	Independent directors on the Board	%	50%	50%	50%	100%
	Female directors on the Board	%	30%	30%	30%	36%

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, PMETAL has an established sustainability framework and a sustainability committee (part of the Risk Committee).
- b) Is the senior management salary linked to fulfilling ESG targets?
- Yes, PMETAL's ESG Remuneration Framework adopted in Feb 2023 supplements the existing remuneration policies and procedures by aligning the current remuneration of selected senior management personnel with the sustainability targets.
- c) Does the company follow the Task Force on Climate-Related Financial Disclosures (TCFD) framework for ESG reporting? Yes, since FY21.
- d) Does the company have a mechanism to capture Scope 3 emissions which parameters are captured? Yes, Scope 3 emission captures 11 of the 15 sub-categories.
- e) What are the 2-3 key carbon mitigation/water/waste management strategies adopted by the company?
- i) PMETAL has invested MYR4.0m to install solar panels with 1,248kW capacity which can avoid 736 tCO2e annually. ii) 18 units of existing forklifts have been replaced with electric-powered forklifts to reduce fuel consumption which could, in turn, reduce GHG emissions by 840.3 tCO2e annually.
- f) Does carbon offset form part of the net zero/carbon neutrality target of the company?
- Yes. In addition, the company is working on few biodiversity projects such as The Queen's Green Canopy Tree Planting Programme and mangrove tree saplings in Hutan Simpan Tanjung Burung, Perak.

Target (Score: 100)					
Particulars	Target	Achieved			
Reduce Scope 1&2 by 15% by 2025, and 30% by 2030 from 2020 baseline	-15%/-30%	+12%			
Reduce water withdrawal intensity by 5% by 2023, and 10% by 2030 from 2016 baseline	-5%/-10%	29.7%			
Waste diversion rate of 95% by 2026	95%	93.2%			
Zero landfilling by 2030	0%	10%			
Reduce LTIFR to below 2.5 by 2024	<2.5	2.7			
30% of women in managerial roles	30%	30.5%			
20% of female workforce	20%	13.3%			
Achieve carbon neutrality by 2050	2050	N/A			
Impact					
N/A					
Overall Score: 63					

ESG score	Weights	Scores	Final Score
Quantitative	50%	26	13
Qualitative	25%	100	25
Target	25%	100	25
Total			63

As per our ESG matrix, Press Metal (PMAH MK) has an overall score of 63.

As per our ESG assessment, PMETAL has an established framework, internal policies, and tangible mid/long-term targets but needs to make headway in improving its quantitative "E" metrics YoY. PMETAL'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).



Top Glove (TOPG MK)

INDUSTRIALS

		Quantitative Paramete	rs (Score: 11)			
	Particulars	Unit	FY21	FY22	FY23	HART MK (FY24)
	Scope 1 emissions	tCO2e	790,587	605,871	273,483	394,037
	Scope 2 emissions	tCO2e	328,801	292,567	152,403	62,039
	Total	tCO2e	1,119,388	898,438	425,886	456,076
	Scope 3 emissions	tCO2e	0.0	19,916.0	6,033.0	4679.0
	Total	tCO2e	1,119,388	918,354	431,919	460,755
	GHG intensity (Scope 1 and 2)	tCO2e/rev RMm	68.4	161.2	188.7	248.2
-	Electricity consumption intensity	kWh/1,000 pcs gloves	6.94	8.62	9.35	5.17
-	Water consumption intensity	cu. M/1,000 pcs gloves	0.29	0.36	0.40	0.13
		MMBTU/1,000 pcs				
	Natural gas consumption intensity	gloves	0.29	0.31	0.31	0.36
	Carbon emission intensity	tCO2/1,000 pcs gloves	0.017	0.020	0.021	0.020
	Total waste generated intensity	kg/1,000 pcs gloves	0.16	0.15	0.15	0.54
	Non-hazardous waste recycled	%	66.7	68.4	73.3	76.8
	Proportion of women in the workforce	%	31	31	28	36
	Women in Sr management	%	52.0	50.0	52.0	38.0
S	Proportion of locals as new hires	% (avg)	85	93	94	15
	Lost time injury frequency (LTIF) rate	number	0.92	0.86	0.81	0.27
	Training hours per employee	number	63.2	55.5	43.9	13.1
	MD/CEO salary as % of reported net profit	: %	0.02	0.8	-0.2	3.6
G	Board salary as % of reported net profit	%	0.1	7.4	-1.3	11.6
_G	Independent directors on the Board	%	58	58	58	44
	Female directors on the Board	%	42	36	42	30

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. 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) 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, Scope 3 captures waste, business travel, employee commuting and downstream leased assets.
- e) What are the 2-3 key carbon mitigation/water/waste management strategies adopted by the company?
- Energy Efficiency: Reduced electricity costs by utilizing low-emission energy sources, such as solar power.

Water Management: Maintaining rainwater harvesting projects within manufacturing facilities and supporting the Integrated Industrial Effluent Treatment System (IETS) to boost water recycling efforts in TOPG's operations.

Waste Management: Upcycling waste into reusable materials to reduce landfill disposal, along with other initiatives such as reglazing projects and rubber reclamation.

f) 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	0.021
Reduce electricity consumption intensity by 10% by 2025	7.76 kWh/k pcs	9.35
	0.151 cu.M/k	
Reduce municipal water consumption intensity by 34% by 2025	pcs	0.18
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%	73%
Achieve ISO 45001 Occupational Health & safety Management System certification for all factories	100%	27%
Impact		
NA NA		
Overall Score: 56		
As per our FSG matrix. Top Glove Corporation (TOPG MK) has an overall score of 56		

ESG score	Weights	Scores	Final Score
Quantitative	50%	11	6
Qualitative	25%	100	25
Target	25%	100	25
Total			56

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 56, which makes its ESG rating above average in our view (average ESG rating = 50; refer to Appendix I for our ESG Assessment Scoring).



Kossan Rubber Industries (KRI MK)

INDUSTRIALS

	Quantitative Parameters (Score: 33)					
						HART MK
	Particulars	Unit	2021	2022	2023	(FY24)
	Scope 1 emissions	tCO2e	382,028	295,547	212,743	394,037
	Scope 2 emissions	tCO2e	130,998	126,020	86,211	62,039
	Total	tCO2e	513,026	421,568	298,953	456,076
	Scope 3 emissions	tCO2e	NA	5250	5305	4,679.0
	Total	tCO2e	513,026	426,818	304,258	460,755
	GHG intensity (Scope 1 and 2)	tCO2e/rev RMm	77	182	189	248
E	Electricity consumption intensity (gloves)	kWh/1,000 pcs gloves	7.78	9.40	8.23	5.17
	Water consumption intensity (gloves)	cu. M/1,000 pcs gloves	0.12	0.21	0.17	0.13
	Natural gas consumption intensity	MMBTU/1,000 pcs				
	(gloves)	gloves	0.33	0.36	0.32	0.36
	Carbon emission intensity (gloves)	tCO2/1,000 pcs gloves	0.024	0.026	0.023	0.0220
	Total waste generated intensity (gloves)	kg/1,000 pcs gloves	0.50	0.62	0.70	0.54
	Non-hazardous waste recyled	%	NA	69.7	63.2	76.8
	Proportion of women in the workforce	%	19.5	20.9	23.0	36
	Women in Sr management	%	33	33.5	34.0	38.0
S	Proportion of locals as new hires	% (avg)	91	98	76	15
	Lost time injury frequency (LTIF) rate		1.34	1.48	1.07	0.30
	Training hours per employee	number	11.5	18.9	20.9	13.1
	MD/CEO salary as % of reported net profit	%	0.3	2.7	7.4	3.6
G	Board salary as % of reported net profit	%	0.9	8.6	22.7	11.6
G	Independent directors on the Board	%	33	40	44	44
	Female directors on the Board	%	11	22	22	30

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 Kossan has launched its Sustainability Policy in 2022. Kossan has established the Kossan Sustainability Committee. In FY23, it launched the Kossan Sustainability Strategy and Blueprint.
- 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?
- No, but intends to adopt TCFD recommendations in the near future.
 e) Does the company have a mechanism to capture Scope 3 emissions which parameters are captured?
- Vos. Scano 2 conturos westo husinose traval and ampleyes commuting
- Yes, Scope 3 captures waste, business travel and employee commuting.
- f) What are the 2-3 key carbon mitigation/water/waste management strategies adopted by the company?

Energy efficiency: Integrated solar panels into its manufacturing facilities. In FY23, KRI has installed solar panels with a total installed capacity of 4.3MW, an increase of 1.14MWp compared to FY22.

Water mgmt: KRI optimizes plant processes and use an auto-dosing system for precise dosing, reducing water consumption. To minimize clean water extraction, it reuses tank water in manufacturing and treated wastewater for purposes like latex waste treatment and housekeeping.

Waste mgmt: KRI incorporated new waste water technology such as Anoxic treatment and Moving Bed Biofilm Reactor (MBBR) process to drive quality improvements.

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

Yes - carbon emission avoidance through tree planting.

Target (Score: 60)	_	_
Particulars	Target	Achieved
Reduce GHG emissions by -45% by 2030	-45%	0%
To contribute to the nation's goal of attaining carbon neutral by 2050	2050	2050
Attaining ISO 45001 certifications for the occupational safety and health management systems it utilise in the factories	100%	96%
Achieved ISO 14001:2015 (Environmental Management Systems) certification for its manufacturing facilities	100%	78%
Zero Cost Recruitment Policy	100%	100%
Impact		
NA		
Overall Score: 53		
As per our ESG matrix, Kossan Rubber Industries (KRI MK) has an overall score of 53.		

ESG score	Weights	Scores	Final Score
Quantitative	50%	33	17
Qualitative	25%	83	21
Target	25%	60	15
Total			53

As per our ESG assessment, KRI has an established framework, internal policies, and mid/long-term targets but needs to make headway in improving its quantitative "E" and "S" metrics YoY. KRI's overall ESG score is 53, which makes its ESG rating above average in our view (average ESG rating = 50; refer to Appendix I for our ESG Assessment Scoring).

Petronas Chemicals (PCHEM MK)

MATERIALS

Quantitative Parameters (Score: 39)						
	Particulars	Unit	FY21	FY22	FY23	TTNP MK (FY23)
	Scope 1 GHG emissions	m tCO2e	5.98	5.95	5.96	N/A
	Scope 2 GHG emissions	m tCO2e	1.48	1.48	1.38	0.39
	Total	m tCO2e	7.46	7.43	7.34	0.39
	Scope 3 GHG emissions	m tCO2e	3.27	N/A	N/A	N/A
	Total	m tCO2e	10.73	7.43	7.34	0.39
	GHG intensity (Scope 1 & 2) (per tonne of production)	tCO2e/t	0.67	0.69	0.71	N/A
	Energy intensity (per tonne of production)	GJ/tonne	15.76	17.08	16.84	0.48
Е	Share of renewable energy use in operations	%	N/A	N/A	0.5%	N/A
-	Water consumption intensity (per tonne of	cu	5.6	5.8	5.5	N/A
	production)	m/tonne				
	Wastewater discharge (COD)	tonnes	182.4	215.0	227.8	76.3
	Hazardous waste 3R rate	%	75%	76%	76%	N/A
	NOx	Ktonne	25.20	18.70	22.00	572.1
	SOx	Ktonne	0.27	0.19	0.17	203.1
	PM	Ktonne	N/A	N/A	N/A	35.6
	Cases of environmental non-compliance	number	0	0	0	0
	% of women in workforce	%	17.3%	21.6%	21.0%	18.4%
	% of women in senior management roles	%	21.9%	25.0%	30.8%	N/A
S	Average training per employee	Man days	10.0	10.2	11.1	1.7
	Lost time injury frequency (LTIF) rate	number	0.07	0.17	0.09	0.12
	% of local supplier (amount)	number	66%	70%	87%	83%
	MD/CEO salary as % of reported net profit	%	0.02%	0.03%	0.11%	N/A
	Board salary as % of reported net profit	%	0.04%	0.06%	0.22%	N/A
G	Independent directors on the Board	%	50%	56%	50%	57%
	Female directors on the Board	%	22%	33%	38%	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 since 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 on Climate-Related Financial Disclosures (TCFD) framework for ESG reporting? Yes
- e) Does the company have a mechanism to capture Scope 3 emissions which parameters are captured?
- PCHEM's efforts for Scope 3 emissions disclosure are ongoing. In 2023, PCHEM completed Scope 3 emissions baselining for all relevant categories under the scope. This exercise determined the material Scope 3 items, working towards disclosure.
- f) What are the 2-3 key carbon mitigation/water/waste management strategies adopted by the company?
- The group collaborates with 3R facilities to identify recoverable waste and implement treatments that divert waste from landfills. PCHEM launched a water recovery program to minimise usage/intake at its production sites. PCHEM installed gas turbine engines with De-Nox technology at its PC Fertiliser Kedah facility, significantly reducing NOx emissions.
- g) Does carbon offset form part of the net zero/carbon neutrality target of the company?
- Yes. 10% emissions will be offset using carbon removal via nature-based solutions.

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 Zero	N/A		
Impact				

NA
Overall Score: 65

As per our ESG matrix, Petronas Chemicals Group (PCHEM MK) has an overall score of 65.

ESG score	Weights	Scores	Final Score
Quantitative	50%	39	19
Qualitative	25%	83	21
Target	25%	100	25
Total			65

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 65, which makes its ESG rating above average in our view (average ESG rating = 50; refer to Appendix I for our ESG Assessment Scoring).

Lotte Chemical Titan (TTNP MK)

MATERIALS

	C	Quantitative Paramete	ers (Score: 27)			
						PCHEM MK
	Particulars	Unit	2021	2022	2023	(FY23)
	Scope 1 emissions	m tCO2e	N/A	N/A	N/A	5.96
	Scope 2 emissions	m tCO2e	0.35	0.38	0.39	1.47
	Total	m tCO2e	0.35	0.38	0.39	7.43
	Scope 3 emissions	m tCO2e	N/A	N/A	N/A	N/A
	Total	m tCO2e	0.35	0.38	0.39	7.43
	GHG intensity (Scope 1 and 2)	tCO2e/t	N/A	N/A	N/A	0.71
	Energy intensity	MW/kT	0.51	0.52	0.48	16.84
Ε	Total waste generation	kT	25.9	7.6	8.0	N/A
	% of waste recycled	%	34%	55%	54%	N/A
	Water consumption intensity	megalitres/kT	5.3	5.3	5.5	N/A
	Wastewater discharge (COD)	mg/l	91.4	76.4	76.3	227.8
	Cases of environmental non-compliance	number	0	0	0	0
	NOx	kg	759,658	573,660	572,127	22,000,000
	SOx	kg	29,002	97,363	203,090	170,000
	Particulate Matter (PM)	kg	64,829	46,958	35,552	N/A
	% of women in workforce	%	17.4%	17.4%	18.4%	N/A
S	% women in management roles	%	N/A	N/A	N/A	31.0%
3	Average training per employee	man hours	22.1	26.0	40.6	266.4
	Lost time incident rate	rate	0.13	0.12	0.12	0.09
	% of local suppliers	%	83%	84%	83%	87%
	MD/CEO salary as % of reported revenue	%	0.03%	0.03%	0.02%	0.007%
	Board salary as % of reported revenue	%	0.01%	0.01%	0.03%	0.0045%
G	Independent directors on the Board	%	57%	57%	57%	50%
	Female directors on the Board	%	43%	43%	43%	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 a risk committee?
- Yes, LCTITAN has proactively integrated ESG practices into its business operations and this is mainly done through the Sustainability Working Group. The Board of Directors is responsible in overseeing the group's commitment and initiatives in ESG.
- b) Is the senior management salary linked to fulfilling ESG targets? No.
- c) Does the company follow the Task Force on Climate-Related Financial Disclosures (TCFD) framework for ESG reporting? *Not yet*.
- d) Does the company have any strategy on low carbon/environment friendly products?

 Yes, LCTITAN holds the ISCC Plus certification for its Malaysian plants, enabling them to market polymers made from renewable or recycled materials. Its PP products also earned the 'Green Label' certification, demonstrating a 10% energy savings and CO2
- e) What are the 2-3 key carbon mitigation/water/waste management strategies adopted by the company? Solar panels are installed at office buildings in Indonesia. Additionally, hydrogen and methane are reused as fuels. The recovery of off-gases is recycled and used for Naphtha Cracker Plant 2 for reprocessing and optimising the utilisation of new materials. LCTITAN's polypropylene products carry the Green Label certification-10% in energy savings and 10% reduction in CO2 emissions.
- g) Does carbon offset form part of the net zero/carbon neutrality target of the company? No.

Target (Score: 0)		
Particulars	Target	Achieved
LCTITAN currently does not have any formal ESG targets	N/A	N/A

Impact

N/A

Overall Score: 30

As per our ESG matrix, Lotte Chemical Titan (TTNP MK) has an overall score of 30.

ESG score	Weights	Scores	Final Score
Quantitative	50%	27	14
Qualitative	25%	67	17
Target	25%	0	0
Total			30

As per our ESG assessment, LCTITAN has an established framework, internal policies but lack mid/long-term targets but needs to make headway in improving its quantitative "E" metrics. TTNP's overall ESG score is 30, which makes its ESG rating below average in our view (average ESG rating = 50; refer to Appendix I for our ESG Assessment Scoring).

Yinson Holdings (YNS MK)

OIL & GAS

	Quanti	tative Parameters	(Score: 42)			
	Particulars	Unit	FY22	FY23	FY24	BAB MK (FY23)
	Scope 1 GHG emissions	k tCO2e	38.1	44.1	43.3	1.9
	Scope 2 GHG emissions	k tCO2e	0.3	0.4	0.3	0.4
	Total	k tCO2e	38.4	44.5	43.6	2.3
	Scope 3 GHG emissions	k tCO2e	1,286.3	1,729.7	2,004.6	984.6
	Total	k tCO2e	1,324.7	1,774.2	2,048.4	986.9
	GHG intensity (by revenue)	kgCO2e/MYR'm	367.3	280.3	175.9	462.6
E	Energy consumption	GWh	2,542	3,428	3,247	531.7
_	Energy consumption intensity (by revenue)	MWh/MYR'm	704.7	542.0	278.8	0.2
	Water discharge	Mega L	2,494.7	2,894.6	2,642.5	N/A
	Waste diverted from landfill	%	25%	45%	40%	N/A
	Total volume of hydrocarbon spills	Litres	160.6	0.0	0.3	0
	NOx	tonnes	1,797.5	2,356.9	2,601.6	3,620.7
	SOx	tonnes	64.7	74.4	122.0	144.2
	VOC/PM	tonnes	446.9	605.0	819.1	1,166.8
	% of women in workforce	%	21.9%	21.5%	21.9%	43.0%
S	% of women in senior management	%	9.1%	9.1%	9.1%	9.1%
٥	Total fatalities as a result of work-related injury	number	0	0	0	0
	Lost time injury frequency (LTIF) rate	rate/m hours	0.00	0.00	0.06	0.0
	CEO salary as % of reported pretax profit	%	0.7%	0.7%	0.5%	4.0%
G	Board salary as % of reported pretax profit	%	2.0%	2.0%	1.2%	4.8%
G	Independent directors on the Board	%	55%	55%	55%	50%
	Female directors on the Board	%	36%	36%	36%	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 Risk Committee?

Yes. Yinson has established a Climate Goals Roadmap (Oct 2021) and released a TCFD-aligned Climate Report (2024) - 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) Is the senior management salary linked to fulfilling ESG targets? Yes.
- c) Does the company follow TCFD framework for ESG reporting?
- Yes. Yinson publishes a standalone TCFD report as well.
- d) Does the company invest in ESG?

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

- e) Does carbon offset form part of the net zero/carbon neutrality target of the company? Yes
- f) Does the company have a mechanism to capture Scope 3 emissions which parameters are captured?

Yes, parameters captured are Business Travels, Employee Commuting, Use of Sold Products and Downstream leased assets.

Target (Score: 100)		
Particulars	Target	Achieved
Carbon neutral	2030	N/A
Net Zero Carbon Emissions	2050	N/A
Carbon intensity reduction: -30% to 12/ -30% to 8 (base: 2020: 17 kg CO2/ boe)	2030/ 2050	23
RE generation of 5600GWh by 2030	5600 GWH	N/A
Number of EV chargers installed by 2030 at 3000	3000	N/A
Impact		
NA		
Overall Score: 71		
As per our ESG matrix, Yinson (YNS MK) has an overall score of 71.		

ESG score	Weights	Scores	Final Score
Quantitative	50%	42	21
Qualitative	25%	100	25
Target	25%	100	25
Total			71

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



Wasco (WSC MK) OIL & GAS

		Quantitative Paramet	ters (Score: 3	5)		
	Particulars	Unit	FY21	FY22	FY23	YNS MK (FY23)
	Scope 1 emissions	'000 tCO2e	4.9	14.2	15.5	44.1
	Scope 2 emissions	'000 tCO2e	8.7	11.0	14.1	0.4
	Total	'000 tCO2e	13.6	25.2	29.5	44.6
	Scope 3 emissions	'000 tCO2e	NA	NA	N/A	1,729.7
	Total	'000 tCO2e	13.6	25.2	29.5	1,774.2
	GHG intensity	tCO2e/1000 manhours	2.3	2.3	1.9	NA
	Energy consumption	GWh	14.1	23.9	27.0	3,427.7
Ε	Energy consumption intensity	MWh/1000 manhours	2.4	2.2	1.7	NA
	Water consumption intensity	m3/1000 man hours	25.5	20.6	16.7	NA
	Share of renewable energy used	%	NA	NA	25%	NA
	Total waste recycled	%	0.0%	31.3%	31.5%	45.5%
	Major Spills	number	NA	NA	N/A	NA
	NOx	kg	30.0	85.0	99.0	NA
	SOx	kg	NA	NA	0	NA
	VOC/PM	kg	NA	NA	0	NA
	% of women in workforce	%	6.0%	8.0%	8.0%	21.5%
S	% of women in senior management	%	7.7%	15.4%	15.0%	9.1%
	Training hours per employee	hours	2	5	14	NA
	Lost time injury frequency (LTIF)	rate per k hours	0.0	0.0	0.0	0.0
	Chairman/MD salary as % of PAT	%	loss	15.3%	13.9%	0.3%
	Board salary as % of PAT	%	loss	16.8%	14.2%	0.2%
G	Independent directors on the Board	%	29%	43%	38%	55%
	Female directors on the Board	%	0%	22%	25%	36%

Qualitative Parameters (Score: 83)

- a) Is there an ESG policy in place and whether there is a standalone Sustainability Committee or is it part of Risk committee? Yes, there is an ESG policy in place and the ESG policy is formulated by the risk committee which is led by the deputy director.
- b) Is the senior management salary linked to fulfilling ESG targets?
- Yes, Wasco's MD/Group CEO has sustainability-related KPIs which are linked to his annual remuneration.
- c) Does the company have a strategy in place to provide cleaner energy solutions?
- Yes, already in operation in their pipeline services, engineering and fabrication services, industrial trading and services.
- d) Does the company have a mechanism to capture Scope 3 emissions which parameters are captured?
- e) What are the 2-3 key carbon mitigation/water/waste management strategies adopted by the company?
- 1) The company has subscribed to a 500,000 kWH/month Green Energy Tariff by TNB 2) collaborating with WSC on solutions for more efficient water generation and disposal. 3) Sewage and greywater are collected in designated tanks, supplied and plumbed, and attached to ablution and lunchroom facilities.
- f) Does carbon offset/credit form part of the carbon reduction/net zero strategy?
- Yes, Wasco has planted 160,000 trees as part of its carbon sequestration programme which will help it offset residual emissions.

Target (Score: 100)		
Particulars	Target	Achieved
Reduce emission intensity from stationary combustion by 5% (from 2023 base)	2024	12%
30% reliance on renewable energy by 2024	30%	25% in 2023

Impact

N/A

Overall Score: 63

As per our ESG matrix, Wasco (WSC MK) has an overall score of 63.

ESG score	Weights	Scores	Final Score
Quantitative	50%	35	18
Qualitative	25%	83	21
Target	25%	100	25
Total			63

As per our ESG assessment, Wasco has an established framework, internal policies, and tangible mid/long-term targets but needs to make headway in improving its quantitative "E" metrics. Wasco'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).

Dialog Group (DLG MK)

OIL & GAS

	Quantitative Parameters (Score: 41)						
	Particulars	Unit	FY21	FY22	FY23	YNS MK (FY24)	
	Scope 1 emissions	k tCO2e	4.5	6.6	9.1	43.5	
	Scope 2 emissions	k tCO2e	7.4	8.4	8.3	0.3	
	Total	k tCO2e	11.9	14.9	17.3	43.8	
	Scope 3 emissions	k tCO2e	NA	NA	NA	2,004.6	
	Total	k tCO2e	11.9	14.9	17.3	2,048.4	
	GHG intensity (by revenue)	kgCO2e/MYR'm	7.4	6.4	5.8	175.9	
Ε	Energy consumption	GWh	30.7	40.0	47.4	3,247	
	Energy consumption intensity (by revenue)	GWh/MYR'm	0.019	0.017	0.016	278.8	
	Share of renewable energy used	% of energy consumed	0.3	1.0	1.6	NA	
	Total water consumption	Megalitres	156.6	155.9	147.3	12.2	
	Water consumption intensity (by revenue)	cu m/MYRm	97.3	67.2	49.1	NA	
	Total waste generated	MT	243	1,151	1,258	517	
	Total waste generated (by revenue)	MT/MYR'm	0.2	0.5	0.4	0.04	
	% of women in workforce	%	19.0%	19.0%	21.0%	24.8%	
	% of women in management	%	22.0%	23.3%	24.3%	9.1%	
s	Community investment	MYR'm	5.2	5.5	4.6	1.9	
3	Training hours per employee	hours	14	14	22	84	
	Work related employee fatalities	number/m manhours	0.0	0.0	0.0	0.0	
	Lost time injury frequency (LTIF) rate	hr	0.0	0.0	0.0	0.0	
	Chairman salary as % of reported net profit	%	1.7%	1.9%	2.6%	0.9%	
G	Board salary as % of reported net profit	%	2.0%	2.3%	2.9%	2.1%	
-0	Independent directors on the Board	%	56%	50%	56%	55%	
	Female directors on the Board	%	44%	38%	33%	36%	

Qualitative Parameters (Score: 67)

- a) Is there an ESG policy in place and whether there is a standalone Sustainability Committee or is it part of Risk Committee? Yes. Dialog has established a standalone Sustainability Development Working Committee (SDWC) which: (i) oversees business functions in ensuring robustness of system of sustainability management, (ii) considers input in sustainability progress, (iii) coordinates on ESG matters and initiatives, (iv) develops and recommends sustainability targets, (v) implements ESG strategies.
- b) Is the senior management salary linked to fulfilling ESG targets? No.
- c) Is the company a signatory of or adheres to the UN Global Compact (UNGC) Initiative? Yes. Dialog supports the UNGC goals and initiatives.
- d) Does the company follow TCFD framework for ESG reporting?

Dialog 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 has invested in (i) a post-consumer plastic recycling industry, via 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) providing solutions for waste management and supporting 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 carbon offset form part of the net zero/carbon neutrality target of the company? NA.

Target (Score: 67)		
Particulars	Target	Achieved
Lost Time Injury Rate (LTIR) for FY23	0.14	0.00
Net Zero Carbon Emissions	2050	NA
More than 80% of employees attending a minimum of 8 hours of training annually by 2030	8	22.3

	Impact
	NA
	Overall Score: 54
As per our ESG matrix, Dialog Group (DLG MK) has an ov	verall score of 54.

ESG score	Weights	Scores	Final Score
Quantitative	50%	41	21
Qualitative	25%	67	17
Target	25%	67	17
Total			54

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 **54**, which makes its ESG rating **slightly above average**, in our view (average ESG rating = 50; refer to Appendix I for our ESG Assessment Scoring).

Icon Offshore (ICON MK)

OIL & GAS

		Quantitative Paramete	ers (Score: 31))		
	Particulars	Unit	FY21	FY22	FY23	YNS MK (FY23)
	Scope 1 emissions	tCO2e	113,389	96,373	81,912	0.0441
	Scope 2 emissions	tCO2e	93	77	63	0.0004
	Total	tCO2e	113,482	96,450	81,975	0.0446
	Scope 3 emissions	tCO2e	NA	NA	NA	1.73
	Total	tCO2e	11,350	96,450	81,975	1.7742
Е	GHG intensity (by Revenue)	tCO2e/MYR'm	52	499	410	280.60
_	Energy consumption	MWh	428,702	390,322	334,362	3,427.69
	Energy consumption intensity (by	GWh/MYR'm	2.0	2.0	1.7	542.00
	Revenue)					
	Share of renewable energy used	% of energy consumed	NA	NA	NA	NA
	Total waste generated	MT	153.26	834.1	791.5	495
	Water withdrawal	m3	NA	16,525	32,800	NA
	% of women in workforce	%	34.0%	40.0%	47.0%	21.9%
S	% of women in senior management	%	16.3%	24.3%	23.5%	9.1%
3	Training hours per employee	hours	7.7	32	26	NA
	Work related employee fatalities	manhours	0	0	0	0
	Lost time incident frequency (LTIF)	rate	0.0	0.1	0.0	0.1
	MD/CEO salary as % of reported PBT	%	4.6%	1.0%	24.6%	0.5%
	Board salary as % of PBT	%	6.8%	1.5%	32.0%	1.2%
G	Independent directors on the Board	%	63%	63%	63%	55%
	Female directors on the Board	%	25%	25%	25%	36%

Qualitative Parameters (Score: 67)

- a) Is there an ESG policy in place and whether there is a standalone Sustainability Committee or is it part of Risk Committee? Yes, there is an ESG policy in place and the ESG policy is led and guided by the Audit and Risk Management Committee that is directly under the supervision of the Board of Directors.
- b) Is the senior management salary linked to fulfilling ESG targets?
- c) Is the Company a signatory of or adheres to the UN Global Compact (UNGC) Initiative? Yes. It supports UNGC's goals and initiatives.
- d) Does the Company follow TCFD framework for ESG reporting? Yes. Icon Offshore follows TCFD framework for ESG reporting.
- e) Does carbon offset form part of the net zero/carbon neutrality target of the company?
- f) Does the company have a mechanism to capture Scope 3 emissions which parameters are captured? No.

Target (Score: 80)		
Particulars	Target	Achieved
Net Zero Carbon Emissions	2050	NA
GHG reduction in 2024-2025 baseline 2022	3-5%	NA
Waste reduction by 3% pa for 2024-2025	3%	NA
Zero hazardous spills	2030	2022
Bursa target of 30% representation of female directors in year 2022	30%	25%
Impact		

N/A

Overall Score: 52

As per our ESG matrix, Icon Offshore (ICON MK) has an overall score of 52.

ESG score	Weights	Scores	Final Score
Quantitative	50%	31	16
Qualitative	25%	67	17
Target	25%	80	20
Total			52

As per our ESG assessment, Icon Offshore has an established framework, internal policies, and tangible mid/long-term targets but needs to make headway in improving its quantitative "E" metrics. Icon Offshore's overall ESG score is **52**, which makes its ESG rating **average**, in our view (average ESG rating = 50; refer to Appendix I for our ESG Assessment Scoring).

Bumi Armada (BAB MK)

OIL & GAS

	Quantitative Parameters (Score: 11)						
	Particulars	Unit	FY21	FY22	FY23	YNS MK (FY24)	
	Scope 1 emissions	'000 tCO2e	18.14	12.29	1.85	43.3	
	Scope 2 emissions	'000 tCO2e	0.34	0.34	0.40	0.3	
	Total	'000 tCO2e	18.48	12. 63	2.25	43.6	
	Scope 3 emissions	'000 tCO2e	946.91	975.13	984.61	2,004.6	
	Total	'000 tCO2e	965.39	987.76	986.86	2,048.4	
	GHG intensity (by Revenue)	ktCO2e/MYRm	0.45	0.41	0.46	0.18	
	Energy consumption intensity (per unit	GJ/t production	1.53	1.52	1.70	NA	
Ε	hydrocarbon)						
	Electricity consumption	MWh	531.7	536.2	645.8	1251.5	
	Water consumption in vessels	'000 cu m	96.1	98.3	88.0	NA	
	Spills released to sea	number	2	0	0	10	
	Waste reused/recycled	%	NA	NA	31%	40%	
	NOx	tonnes	3,403.60	3,675.00	3,620.70	2,601.6	
	SOx	tonnes	151.30	155.50	144.20	122.0	
	VOC	tonnes	945.5	1,034.4	1,166.8	819.1	
	% of women in workforce	%	43.0%	43.0%	44.0%	21.9%	
S	% of women in senior management	%	25.0%	44.4%	NA	9.1%	
	Training hours per employee	hours	35	30	42	84	
	Lost time injury frequency (LTIF) rate	%	0.54	0.49	0.00	0.06	
	Chairman/MD/CEO salary as % of PATAMI	%	1.5%	1.5%	3.5%	0.9%	
	Board salary as % of PATAMI	%	1.9%	1.9%	4.3%	2.1%	
G	Independent directors on the Board	%	63%	50%	50%	55%	
	Female directors on the Board	%	29%	25%	17%	36%	

Qualitative Parameters (Score: 83)

- a) Is there an ESG policy in place and whether there is a standalone Sustainability Committee or is it part of Risk Committee? Yes, BArmada has an ESG policy in place and there is a standalone Sustainability Committee.
- b) Is the senior management salary linked to fulfilling ESG targets? No.
- c) Does the company have a strategy in place to provide cleaner energy solutions?
- Yes. BArmada is working on multiple activities such as 1) collaborating to potentially explore injecting Light Cycle Oil (LCO) from Grain CCGT Power Plant into a depleted gas reservoir, 2) conducting pre-FEED study for the offshore production of Blue Ammonia, 3) incorporating marine carbon capture and storage into new proposals.
- d) Does the company have a mechanism to capture Scope 3 emissions which parameters are captured?

Yes, in 2022, the company has started to capture data for business air travel.

- e) What are the 2-3 key carbon mitigation/water/waste management strategies adopted by the company?
- All vessels that produce waste are ensured to have been managed responsibly and is managed in compliance with the requirements under MARPOL. Water that is going to be released back to the sea would be treated accordingly before being released. As for carbon, BArmada's operations use more carbon-friendly machinery to help the group reach its net carbon neutrality by 2050.
- f) Does carbon offset/credit form part of the carbon reduction/net zero strategy?

Yes. The company is investing in carbon capture.

Target (Score: 100)		
Particulars	Target	Achieved
Net Zero Carbon Emissions	2050	NA
FPSO/FSU carbon intensity (tCO2e/k) per tonnes of production	119	115
Water discharge by oil concentration recorded by its FPSO vessels	17.1mg/L	19.3mg/L
Impact		
N/A		
Overall Score: 51		
As per our ESG matrix, Bumi Armada (BAB MK) has an overall score of 51.		

ESG score	Weights	Scores	Final Score
Quantitative	50%	11	6
Qualitative	25%	83	21
Target	25%	100	25
Total			51

As per our ESG assessment, Bumi Armada has an established framework, internal policies, and tangible mid/long-term targets but needs to make headway in improving its quantitative "E" metrics. Bumi Armada'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).

Velesto Energy (VEB MK)

OIL & GAS

	Quantitative Parameters (Score: 18)						
	Particulars	Unit	FY21	FY22	FY23	YNS MK (FY24)	
	Scope 1 emissions	m tCO2e	0.0530	0.0549	0.0635	0.0435	
	Scope 2 emissions	m tCO2e	0.0002	0.0005	0.0005	0.0003	
	Total	m tCO2e	0.0532	0.0554	0.0639	0.0438	
	Scope 3 emissions	m tCO2e	N/A	0.0328	0.0001	2.00	
	Total	m tCO2e	0.0532	0.0882	0.0640	2.0484	
	GHG intensity (Scope 1 and 2)	tCO2e/MYR mil rev	141.0000	95.0000	53.0000	175.90	
	Energy intensity	MWh/MYR mil rev	NA	NA	NA	278.80	
E	Total waste generated	MT	193.7	137.8	223.7	NA	
	% of waste recycled	%	N/A	N/A	N/A	39.99%	
	Average Water Consumption per rig	MT	12,874.0	12,593.0	16,882.5	NA	
	Wastewater discharge (COD)	Ml	N/A	N/A	N/A	2642.5	
	Cases of environmental non-compliance	number	0	0	0	0	
	NOx	tonnes of CO2e	113.37	113.53	132.34	1,661.7	
	NH4	tonnes of CO2e	59.89	59.98	69.92	NA	
	Particulate Matter (PM)	tonnes of CO2e	N/A	N/A	N/A	NA	
	% of women in workforce	%	N/A	N/A	N/A	21.5%	
S	% women in management roles	%	45.0%	29.0%	26.0%	9.1%	
3	Avg number of training days per employee	days	0.5	0.8	1.3	NA	
	Lost time injury frequency (LTIF)	number	0.5	0.5	0.0	0.0	
	% of local suppliers	%	71%	68%	71%	93%	
	MD/CEO salary as % of PATAMI	%	3.09%	1.58%	1.91%	0.88%	
	Board salary as % of PATAMI	%	5.14%	3.55%	3.10%	2.10%	
G	Independent directors on the Board	%	56%	56%	56%	55%	
	Female directors on the Board	%	33%	44%	44%	36%	

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, there is an ESG policy in place and it is under a Risk Committee that is led by its Board of Directors.
- b) Is the senior management salary linked to fulfilling ESG targets?
- Yes, the group has established Key Performance Indicators linked to remuneration aligned with selected sustainability metrics.
- c) Does the company follow the Task Force on Climate-Related Financial Disclosures (TCFD) framework for ESG reporting? Yes, the company has further enhanced their alignment with TCFD as they have pledged to their commitment to Net Zero 2050 ambition in 2024. In 2024, the company will be releasing a summary of their alignment to TCFD covering four core elements: Governance, Strategy, Risk Management and Metrics & Targets.
- d) Does the company have a mechanism to capture Scope 3 emissions which parameters are captured? *Not yet.*
- e) What are the 2-3 key carbon mitigation/water/waste management strategies adopted by the company? Adoption of new technologies and practices that increase energy efficiency i.e. rig power management system. Seawater is used instead of fresh water for rig operations, with most seawater withdrawn for drilling and cleaning purposes, and the remaining amount is filtered and distilled for safe consumption by the crew. Velesto also practices meticulous segregation of waste such as general waste, scheduled waste and recyclable waste.
- f) Does carbon offset form part of the net zero/carbon neutrality target of the company? No.

Target (Score: 100)				
Particulars	Target	Achieved		
Net carbon neutrality	2050	N/A		
Exceeded Bursa Malaysia target for 30% female directorship by 2022	30%	44%		
Emission reduction intensity per operating day by 2030	2030	N/A		
Loss time injury rate	0	0		
Number of major spills	0	0		
Impact				
N/A				

Overall Score: 51

As per our ESG matrix, Velesto (VEB MK) has an overall score of 51.

ESG score	Weights	Scores	Final Score
Quantitative	50%	18	9
Qualitative	25%	67	17
Target	25%	100	25
Total			51

As per our ESG assessment, Velesto has an established framework, internal policies, and tangible mid/long-term targets but needs to make headway in improving its quantitative "E" metrics YoY. Velesto'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).

IOI Corporation (IOI MK)

PLANTATIONS

	Qua	ntitative parameter	s (Score: 59)			
	Particulars	Unit	FY22	FY23	FY24	SDG MK (2023)
	Scope 1 GHG emissions	m tCO2e	1.06	1.06	0.74	3.76
	Scope 2 GHG emissions	m tCO2e	0.04	0.04	0.03	0.17
	Total	m tCO2e	1.09	1.10	0.78	3.93
	Scope 3 GHG emissions	m tCO2e	8.73	6.71	4.39	7.91
	Total	m tCO2e	9.82	7.81	5.16	11.83
Ε	GHG intensity (Scope 1 and 2)	tCO2e/t	1.70	1.80	1.30	1.5
	Energy intensity	GJ/t	7.15	8.50	7.45	29.0
	Share of renewable energy use in operations	%	27%	55%	53%	88%
	Water consumption intensity	m³/t	3.70	3.97	3.57	1.43
	Waste recycling rate	%	89%	96%	98%	N/A
	Proportion of RSPO-certified plantation area	%	85%	83%	99%	98%
	Total area set aside for conservation	Ha	10,052	9,103	9,235	45,396
	% of women in workforce	%	32.0%	29.0%	25.1%	17.6%
S	% of women in management roles	%	27.0%	24.0%	25.4%	28.1%
2	Lost time injury frequency (LTIF) rate	No/ m hrs	25.84	483.56	22.31	8.7
	Average training hours per employee	Hours	60.65	16.47	39.88	N/A
	MD/CEO salary as % of reported net profit	%	1.50%	2.04%	1.9%	0.35%
	Board salary (ex-MD) as % of reported net profit	%	0.08%	0.12%	0.13%	0.21%
G	Independent directors on the Board	%	75%	63%	57%	50%
	Female directors on the Board	%	38%	38%	43%	33%

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, IOI has an established sustainability policy and a Board Sustainability Committee.
- b) Is the senior management salary linked to fulfilling ESG targets?

Yes

- c) Does the company follow the Task Force of Climate-Related Financial Disclosures (TCFD) framework for ESG reporting? Yes.
- d) Does the company have a mechanism to capture Scope 3 emissions which parameters are captured?
- Yes. Overall, IOI's Scope 3 emissions from its Resource-Based Manufacturing makes up 61% of total emissions, of which 94% comes from purchased goods and services (category 1).
- 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 commitment since 2016. 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 large-scale tree-planting projects.

Target (Score: 83)		
Particulars	Target	Achieved
Reduce Scope 1&2 GHG intensity by about 40% by 2025 based on a 2015 baseline (tCO2e/t)	-40%	-42%
Medium-term target based on Scopes 1 and 2, to be carbon neutral by 2030, vs 2015 baseline	Carbon Neutral	In progress
Long-term Net-zero carbon emissions for Scopes 1, 2 and 3 by 2040 through focusing on working		
collaboratively with its suppliers to lower their emissions intensity.	Net zero	In progress
5-year plan (2020-2024) to increase plantation oil yield by at least 15% by end-2024 (t/ha)	5.34	4.21 in FY24
		3,131 ha coconut,
5-year plan (2020-2024) to diversify planting of crops away from full reliance on oil palm (ha)	5,200	87 ha durian
100% RSPO-certification for all plantations by 2025	100%	99%
Impact		
NA NA		
Overall score: 75		
As per our FSG matrix, IOI Corporation (IOI MK) has an overall score of 75		

ESG score	Weights	Scores	Final Score
Quantitative	50%	59	29
Qualitative	25%	100	25
Target	25%	83	21
Total			75

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 75, which makes its ESG rating above average in our view (average ESG rating = 50; refer to Appendix I for our ESG Assessment Scoring).



SD Guthrie (SDG MK)

PLANTATIONS

	Quantitative parameters (Score: 40)						
	Particulars	Unit	FY21	FY22	FY23	IOI MK (FY23)	
	Scope 1 GHG emissions (net)	m tCO2e	4.62	4.04	3.76	1.06	
	Scope 2 GHG emissions (net)	m tCO2e	0.16	0.16	0.17	0.04	
	Total	m tCO2e	4.78	4.20	3.93	1.10	
	Scope 3 GHG emissions (net)	m tCO2e	7.05	7.77	7.91	6.71	
	Total	m tCO2e	11.84	11.98	11.83	7.81	
Ε	GHG intensity	tC2e/t	1.64	1.61	1.45	9.79	
	Energy usage	m GJ	31.0	28.5	29.0	10.49	
	Share of renewable energy use	%	86%	86%	88%	55%	
	Wastewater consumption intensity	m3/t of FFB	1.43	1.44	1.43	3.97	
	Proportion of RSPO-certified plantation area	%	99%	99%	98%	94%	
	Total area set aside for conservation	hectare	46,892	47,304	45,396	9,103	
	% of women in workforce	%	21%	20%	18%	29%	
S	% of women in management roles	%	24%	27%	28%	22%	
3	Lost time injury frequency (LTIF) rate	No./m hrs	7.2	9.3	8.7	483.6	
	Fatalities	Number	1.0	5.0	5.0	5.0	
	MD/CEO salary as % of reported net profit	%	0.2%	0.4%	0.3%	2.0%	
G	Board salary as % of reported net profit	%	0.2%	0.2%	0.2%	0.1%	
G	Independent directors on the Board	%	55%	50%	50%	67%	
	Female directors on the Board	%	27%	30%	33%	44%	

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, SDG has a Sustainability Policy and a Sustainability Committee.
- b) Is the senior management salary linked to fulfilling ESG targets? Yes.
- c) Does the company follow the Task Force on Climate-Related Financial Disclosures (TCFD) framework for ESG reporting? Yes.
- d) Does the company have a mechanism to capture Scope 3 emissions which parameters are captured?
- Yes. It captures many parameters but the bulk of the emissions relates to purchased feedstock and non-feedstock materials.
- 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.
- f) Does carbon offset form part of the net zero/carbon neutrality target of the company?
- Yes. Among the initiatives taken include conservation, restoration, large-scale reforestation, rehabilitation, and tree-planting.

Target (Score: 63)		
Particulars	Target	Achieved
Absolute Scope 1 and 2 GHG emissions reduction of 42% by 2030 (from 2020 base year; Energy & Industrial Processes)	-42.0%	In progress
Absolute Scope 1 & 3 FLAG GHG emissions reduction of 30.3% by 2030 (from 2020 base year, and includes removals)	-30.3%	In progress
Absolute Scope 1, 2 & 3 GHG emissions reduction of 90% by 2050 (from 2020 base year; Energy & Industrial Processes)	-90.0%	In progress
Absolute Scope 1 & 3 FLAG GHG emissions reduction of 72% by 2050 (from 2020 base year, and include removals)	-72.0%	In progress
Aims for 45 biogas plants by 2030	45	16
Zero fatality target	zero	5
100% traceability to mills and plantation across its supply chain by 2025	100%	70.9% to plantations, 93.2% to mills
15% annual reduction in frequency of safety and health incidents against previous year	-15.0%	-6.5%
Impact		
NA		
Overall score: 61		
As per our ESG matrix, SD Guthrie (SDG MK) has an overall score of 61.		

ESG score	Weights	Scores	Final Score
Quantitative	50%	40	20
Qualitative	25%	100	25
Target	25%	63	16
Total			61

As per our ESG assessment, SDG has an established framework on sustainability policy. It has recently enhanced its ESG policies, commitments and practices, especially the "E" and "S" parts. SDG'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).



Kuala Lumpur Kepong (KLK MK)

PLANTATIONS

	Quantitative parameters (Score: 33)					
	Particulars	Unit	FY21	FY22	FY23	IOI MK (FY23)
	Scope 1 GHG emissions (Plantation + Oleo)	m tCO2e	0.773	0.866	0.977	1.025
	Scope 2 GHG emissions (Plantation + Oleo)	m tCO2e	0.196	0.177	0.227	0.026
	Total	m tCO2e	0.969	1.043	1.203	1.051
	Scope 3 GHG emissions (Oleo only)	m tCO2e	0.142	0.145	0.137	0.122
	Total	m tCO2e	1.110	1.188	1.340	1.173
	GHG emissions intensity (Plantation)	tCO2e/t	0.49	0.48	0.46	1.37
E	GHG emissions intensity (Oleo)	tCO2e/t	0.26	0.23	0.21	0.40
	Energy intensity (Plantation)	GJ/t	0.43	0.41	0.38	0.00
	Energy intensity (Oleo)	GJ/t	3.80	3.45	3.36	7.33
	Water usage (Plant'n)-m3/t of FFB processed	m3/t	1.38	1.40	1.27	1.18
	Water usage (Oleo) - m3/t of prod vol	m3/t	1.30	1.30	1.73	2.19
	RSPO-certified plantation area	Ha	230,731	263,802	272,307	192,561
	Total area set aside for conservation (incl.HCV)	ha	22,413	22,963	24,476	9,103
	% of women in workforce	%	20.8%	21.3%	20.4%	29.0%
c	% of women in management (& non-mgmt) roles	%	28.6%	28.2%	N/A	22.0%
3	Lost time injury freq. rate (Plant'n) - simple avg	No./ m hrs	41.2	41.6	34.6	483.60
	Lost time injury freq. rate (Oleo) - simple avg	No./ m hrs	1.6	1.8	1.5	5.0
	MD/CEO salary as % of reported net profit	%	0.61%	0.76%	1.73%	2.00%
G	Board salary (excl.EDs) as % of rep'd net profit	%	0.10%	0.12%	0.30%	0.10%
<u> </u>	Independent directors on the Board	%	67%	67%	44%	67%
	Female directors on the Board	%	22%	22%	22%	44%

Qualitative Paramaters (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, KLK has a Sustainability Policy and a Sustainability Steering Committee.
- b) Is the senior management salary linked to fulfilling ESG targets? *Not explicit in the Annual Report 2023.*
- c) Does the company follow the Task Force on Climate-Related Financial 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 limited to its Plantation division only, which captures mostly fertiliser-related emissions.
- 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, and protecting high carbon stock forests, High Conservation Value Areas and 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, and KLK is also rehabilitating abandoned land, restoring forest areas, planting trees, etc.

Target (Score: 88)		
Particulars	Target	Achieved
25% reduction in GHG emissions intensity by 2029/2030 (compared to 2018/2019)	-25%	-24%
Net zero emissions by 2050 (Scope 1 and Scope 2)	Net zero	N/A
Zero fatalities	Zero	3
Reduce Lost Time Injury rate by 25% on average by 2025/2026 (compared to 2019/ 2020)	-25%	-24%
100% traceability to Plantation for Refineries & KC Plants	100%	94%
100% traceability to Mill for Oleochemical Plants	100%	90%
Target RSPO certification for assets in Malaysia by end 2024, in Indonesia by 3Q25 and in Liberia by end-2025	100%	76% at group level
Plant 1,000,000 forest/fruit trees	1,000k	459.0k
Impact		
NA		
Overall score: 56		
As per our ESG matrix, Kuala Lumpur Kepong (KLK MK) has an overall score of 56.		

ESG score	Weights	Scores	Final Score
Quantitative	50%	33	17
Qualitative	25%	67	17
Target	25%	88	22
Total			56

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 disclosures, targets and commitments. KLK'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).



Sarawak Oil Palms (SOP MK)

PLANTATIONS

	Quantitative Parameters (Score: 38)						
	Particulars	Unit	2021	2022	2023	IOI MK (FY23)	
	Scope 1 GHG emissions	m tCO2e	0.237	0.282	0.269	1.06	
	Scope 2 GHG emissions	m tCO2e	0.032	0.039	0.025	0.04	
	Total	m tCO2e	0.269	0.32	0.29	1.10	
	Scope 3 GHG emissions	m tCO2e	N/A	N/A	N/A	6.71	
	Total	m tCO2e	N/A	N/A	N/A	7.81	
Ε	GHG intensity (Plantation + Mill; Scope 1 & 2)	tCO2e/t	0.27	0.34	0.24	1.39	
	Energy intensity (Plantation + Mill)	GJ/t	0.48	0.46	0.39	0.0	
	Share of renewable energy use in operations	%	46%	60%	63%	55%	
	BOD Level of Effluent from Mills	mg/L	21.2	17.3	13.3	N/A	
	Water Usage (liter per t of FFB Processed) - mill	liter/t	1,703	1,774	1,712	1,180	
	Total area set aside for conservation	Ha	553	553	553	9,103	
	% of women in workforce	%	33%	33%	34%	29 %	
s	% of women in management roles	%	23%	24%	23%	25%	
3	Lost time injury rate (group simple average)	rate	0.65	0.49	0.68	4.5	
	Fatal accident rate	number	0	0	1	5	
	MD/CEO salary as % of reported net profit	%	N/A	N/A	N/A	2.0%	
G	Board salary (ex-MD) as % of reported net profit	%	1.0%	1.9%	1.6%	0.1%	
- 4	Independent directors on the Board	%	30%	30%	30%	67%	
	Female directors on the Board	%	30%	50%	50%	44%	

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. SOP has a Group Sustainability Committee that reports to 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 Financial 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?

SOP commits to reduce GHG emissions with the installation of methane capture facilities to reduce emissions at all mills (out of 7 mills, 2 mills have been fully commissioned, and 3 are under construction), and to install the Electrostatic Precipitators (ESP) in all mills (5 mills installed with ESP) to reduce dust emissions.

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

Target (Score: 75)		
Particulars	Target	Achieved
Zero fatality	0	1
Install Electrostatic Precipitator (ESP) for all its palm oil mills	7	5
Install methane capture facility for all palm oil mills	7	2
Reduction of 35% in GHG emissions once methane capture installations are completed for all 7 mills	-35%	In progress
Impact		

NA

Overall Score:
As per our ESG matrix, Sarawak Oil Palms (SOP MK) has an overall score of 46.

ESG score	Weights	Scores	Final Score
Quantitative	50%	38	19
Qualitative	25%	33	8
Target	25%	75	19
Total			46

As per our ESG assessment, SOP has an established framework and internal policies, but needs to make headway in improving its quantitative "E" as well as qualitative metrics. SOP's overall ESG score is 46, which makes its ESG rating below average, in our view (average ESG rating = 50; refer to Appendix I for our ESG Assessment Scoring).



TSH Resources (TSH MK)

PLANTATIONS

	Quantitative Parameters (Score: 27)							
	Particulars	Unit	2021	2022	2023	IOI MK (FY23)		
	Scope 1 GHG emissions	m tCO2e	N/A	N/A	N/A	1.06		
	Scope 2 GHG emissions	m tCO2e	N/A	N/A	N/A	0.04		
	Total	m tCO2e	N/A	N/A	N/A	1.1		
	Scope 3 GHG emissions	m tCO2e	N/A	N/A	N/A	6.71		
	Total	m tCO2e	0.274	0.283	0.269	7.81		
	GHG intensity - Plantation	tCO2e/t	1.08	1.20	1.15	1.39		
Ε	Energy intensity	GJ/ton	N/A	N/A	N/A	0.0		
	Share of renewable energy use in mills	%	N/A	98.0	91.7	89.9		
	Average water consumption (on FFB processed)	m3 per MT	1.10	1.12	0.95	1.18		
	Proportion of RSPO-certified plantation area	%	53%	44%	44%	83%		
	Forest rehabilitation	hectare	31,223	33,120	35,017	N/A		
	% of women in workforce	%	N/A	N/A	21.6%	29.0%		
c	% of women in management roles	%	N/A	N/A	18.4%	25.0%		
3	Lost time incident rate	rate	N/A	6.08	3.86	4.5		
	Fatal accident rate	Number	0.0	0	1	5		
	MD/CEO salary as % of reported net profit	%	2.0%	1.0%	3.8%	2.00%		
G	Board salary (ex.CEO) as % of report'd net profit	%	3.7%	2.0%	7.4%	0.10%		
G	Independent directors on the Board	%	50%	60%	56%	67%		
	Female directors on the Board	%	20%	22%	11%	44%		

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 established a group-wide sustainability policy in April 2023, and has a Sustainability Steering Committee.
- b) is the senior management salary linked to fulfilling ESG targets? *No.*
- c) Does the company follow the Task Force on Climate-Related Financial Disclosures (TCFD) framework for ESG reporting? No.
- e) Does the company have a mechanism to capture Scope 3 emissions which parameters are captured? Yes, Scope 3 emissions captures mainly employee commuting and business travel data.
- f) What are the 2-3 key carbon mitigation/water/waste management strategies adopted by the company?

It has a waste-to-energy approach. For instance, TSH operates a Bio-Integration Complex in Kunak, Sabah that converts plantation by-products, such as empty fruit bunches (EFB) and methane from palm oil mill effluent (POME) treatment, into renewable electricity. It also pursues renewable energy optimisation whereby in FY2023, half of Ekowood's (TSH's the engineered hardwood flooring division) total energy consumption of 4 million kWh was met by renewable solar energy generation of 2 million kWh.

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

Target (Score: 75)		
Particulars	Target	Achieved
Zero fatality	Zero	1
100% certified RSPO estates by 2025	100%	44%
100% certified RSPO mills by 2025	100%	60%
Water consumption less than 1.5 m3/MT FFB (mills)	1.5	1.0
Impact		
NA		
Overall Score: 45		
As per our ESG matrix, TSH Resources (TSH MK) has an overall score of 45.		

ESG score	Weights	Scores	Final Score
Quantitative	50%	27	13
Qualitative	25%	50	13
Target	25%	75	19
Total			45

As per our ESG assessment, TSH has an established framework and internal policies, but lacking disclosures, and medium to long-term targets. It also needs to make headway in improving its quantitative "E" metrics. TSH'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).



Genting Plantations (GENP MK)

PLANTATIONS

	Quantitative parameters (Score: 13)						
	Particulars	Unit	2021	2022	2023	IOI MK (FY23)	
	Scope 1 GHG emissions	'000 tCO2e	169.2	172.5	159.4	1,062.0	
	Scope 2 GHG emissions	'000 tCO2e	9.0	13.8	12.4	40.0	
	Total	'000 tCO2e	178.2	186.3	171.8	1,102.0	
	Scope 3 GHG emissions	'000 tCO2e	7.1	15.8	17.1	6,710	
	Total	'000 tCO2e	185.3	202.1	188.9	7,811.0	
Ε	Energy Intensity (Estate + Mill)	MJ/mt	356	463	306	-	
	Water consumption	megalitres	5,366	4,006	4,933	3,401	
	Biomass Use (repurposed / recycled)	m MT	1.59	1.21	1.49	0.49	
	Proportion of RSPO-certified plantation area	%	34%	38%	42%	94%	
	Total area set aside for conservation (includes						
	HCV area)	ha	30,064	30,064	35,573	9,103	
	% of women in workforce	%	24.0%	24.0%	23.0%	29.0%	
c	% of women in management roles	%	20.0%	21.0%	23.0%	22.0%	
3	Recordable work related injury rate	No./ m hrs	14.2	9.1	11.2	483.6	
	Fatality incidences	No.	3.0	2.0	3.0	5.0	
	MD/CEO salary as % of reported net profit	%	0.66%	0.89%	1.67%	2.0%	
G	Board salary (excl.ED) as % of rept'd net profit	%	0.59%	0.38%	0.64%	0.1%	
G	Independent directors on the Board	%	67%	70%	50%	67%	
	Female directors on the Board	%	11%	11%	20%	44%	

Qualitative Paramaters (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, GENP has a Sustainable Policy and a Head of Sustainability Department to provide dedicated sustainability strategies.
- b) Is the senior management salary linked to fulfilling ESG targets? Yes.
- c) Does the company follow the Task Force on Climate-Related Financial Disclosures (TCFD) framework for ESG reporting? *No.*
- e) Does the company have a mechanism to capture Scope 3 emissions which parameters are captured?
- Yes, the parameters are mainly purchased goods (such as fertilisers, chemicals, tools), and transportation of products.
- 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
	Carbon	
Targets Carbon Neutrality by 2030	Neutral	N/A
	No	
Commitment to No Exploitation adopted in the entire supply chain by 2025	Exploitation	On track
Zero fatality	Zero	3
Traceability to Plantation (FFB Suppliers) by 2026	100%	On track; 99.8%
Traceability to Plantation (External mills) by 2030	100%	On track; 84.1%
Impact		
NA NA		
Overall score: 43		
As per our ESG matrix, Genting Plantations (GENP MK) has an overall score of 43.		

ESG score	Weights	Scores	Final Score
Quantitative	50%	13	7
Qualitative	25%	83	21
Target	25%	60	15
Total			43

As per our ESG assessment, GENP has an established framework, internal policies, and mid/long-term targets but needs to make headway in improving its quantitative "E" and "G" matrix. GENP'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).

November 19, 2024 12-



TH Plantations (THP MK)

PLANTATIONS

	Quantitative Parameters (Score: 42)						
	Particulars	Unit	2021	2022	2023	IOI MK (FY23)	
	Scope 1 GHG emissions	m tCO2e	N/A	N/A	N/A	1.06	
	Scope 2 GHG emissions	m tCO2e	N/A	N/A	N/A	0.04	
	GHG reductions (carbons sequestration)	m tCO2e	N/A	N/A	N/A	1.1	
	Total	m tCO2e	N/A	N/A	N/A	6.71	
	Scope 3 GHG emissions	m tCO2e	N/A	N/A	N/A	7.81	
Ε	Total	m tCO2e	N/A	N/A	N/A	1.39	
	GHG Emission - Average total emission	tCO2e/t FFB	1.93	1.85	0.90	0.0	
	Renewable energy consumption	%	N/A	N/A	95.6	89.9	
	Waste management - biomass residue						
	repurposed	%	95.4	96.6	99.5	1.18	
	Water consumption rate	m3/t FFB	1.62	1.56	1.46	1.06	
	% of women in workforce	%	23%	24%	23%	29.0%	
S	% of women in management roles	%	27%	17%	50%	25.0%	
3	Lost Time Incident Rate (weighted average)	Rate	4.9	3.8	6.0	4.5	
	Fatalities	number	0	0	0	5	
	MD/CEO salary as % of reported net profit	%	N/A	N/A	N/A	2.0%	
G	Board salary as % of reported net profit	%	1.3%	2.0%	5.4%	0.1%	
_G	Independent directors on the Board	%	63%	63%	67%	67%	
	Female directors on the Board	%	0%	13%	22%	44%	

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, THP has an established sustainability policy and a working sustainability committee that reports to the CEO, who in turn reports to the Board on the group's sustainability performance.
- b) Is the senior management salary linked to fulfilling ESG targets?
- c) Does the company follow the Task Force on Climate-Related Financial 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 2022, THP completed the installation of Tertiary Effluent Treatment Plant ("TETP") in its Sabah and Sarawak mills. It plans to equip its mills with biogas plants and install a TETP in its Peninsular Malaysia mills. In addition, THP has utilised >95% of its biomass residue as fuel for renewable energy and fertiliser application, where possible. THP has also embarked on a 7-year commitment on a nature-based project i.e. in a conservation and restoration project covering 4,300 ha of degraded forest in Mersing, Johor.
- g) Does carbon offset form part of the net zero/carbon neutrality target of the company? No.

Target (Score: 50)		
Particulars	Target	Achieved
Zero fatality	Zero	Zero
THP generally lacks formal medium-to-long term ESG targets	N/A	N/A

Impact N/A

Overall Score: 42

As per our ESG matrix, TH Plantations (THP MK) has an overall score of 42.

ESG score	Weights	Scores	Final Score
Quantitative	50%	42	21
Qualitative	25%	33	8
Target	25%	50	13
Total			42

As per our ESG assessment, THP has an established framework and internal policies, but lacks medium to long-term targets. It also needs to make headway in improving its qualitative matrix, and quantitative "E" disclosures. THP'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).



Ta Ann Holdings (TAH MK)

PLANTATIONS

	Quantit	ative Paramete	rs (Score: 38)			
	Particulars	Unit	2021	2022	2023	IOI MK (FY23)
	Scope 1 GHG emissions	m tCO2e	N/A	N/A	N/A	1.06
	Scope 2 GHG emissions	m tCO2e	N/A	N/A	N/A	0.04
	Total	m tCO2e	N/A	N/A	N/A	1.10
	Scope 3 GHG emissions	m tCO2e	N/A	N/A	N/A	6.71
	Total	m tCO2e	N/A	N/A	N/A	7.81
Е	GHG intensity (Scope 1 and 2)	tCO2e/t	N/A	N/A	N/A	1.39
_	Iotal Energy Consumption	m GJ	N/A	N/A	0.211	10.491
	Share of renewable energy use in mills	%	N/A	N/A	N/A	55%
	Avg water consumption (on FFB processed)	m3 per MT	N/A	N/A	N/A	1.18
	Planted forest logs as a % of total logs output	%	20%	30%	21%	N/A
	Total area set aside for conservation	Ha	54,000	54,000	54,000	9,103
	% of women in workforce (non-executive)	%	N/A	N/A	22%	29%
S	% of women in management roles	%	N/A	N/A	22%	25%
ر	Lost time incident rate (LTIR)	rate	N/A	N/A	0.56	4.5
	Number of work-related fatalities	number	N/A	N/A	1	5
	MD/CEO salary as % of reported net profit	%	3.5%	3.3%	2.5%	2.0%
G	Board salary(ex.CEO) as % of report'd net profit	%	1.6%	3.5%	2.8%	0.1%
G	Independent directors on the Board	%	50%	44%	38%	67%
	Female directors on the Board	%	11%	22%	25%	44%

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?

 No ESG Policy but a sustainability framework. There is a sustainability working group which reports to the Chairman and the Board of Directors.
- b) Is the senior management salary linked to fulfilling ESG targets?

No.

- c) Does the company follow the Task Force on Climate-Related Financial 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?

TAH has installed methane gas trap to mitigate the release of methane into the atmosphere. TAH uses palm kernel shells as fuel to generate energy. In addition, it implements renewable energy initiatives including using solar power installed at security posts, production sites, log ponds, stores and housing areas to reduce reliance on fossil fuel-generated electricity. Due to water scarcity, rainwater collection tanks are also installed at strategic locations to collect rainwater for domestic use and cleaning purposes.

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

Target (Score: 0)		
Particulars	Target	Achieved
Zero fatality	Zero	1
TAH generally lacks formal ESG targets	N/A	N/A

Impact

NA

Overall Score: 23

As per our ESG matrix, Ta Ann Holdings (TAH MK) has an overall score of 23.

ESG score	Weights	Scores	Final Score
Quantitative	50%	38	19
Qualitative	25%	17	4
Target	25%	0	0
Total			23

As per our ESG assessment, TAH lags peers in terms of quantitative parameters and internal policies as well as tangible mid/long-term targets. TAH's overall ESG score is 23, which makes its ESG rating below average, in our view (average ESG rating = 50; refer to Appendix I for our ESG Assessment Scoring).



Gamuda (GAM MK) REAL ESTATE

	Quantitative parameters (Score: 67)							
	But to	11.26	F)/20	EV04	EV22	E)/22	IJM MK	
	Particulars	Unit	FY20	FY21	FY22	FY23	(FY24)	
	Scope 1 GHG emissions	tCO2e	1287	2995	8428	6718	20820	
	Scope 2 GHG emissions	tCO2e	4723	13588	18147	20107	51430	
	Total	tCO2e	6010	16583	26575	26825	72250	
	Scope 3 GHG emissions	tCO2e	NA	NA	5709	130008	867685	
E	Total	tCO2e	NA	NA	32284	156833	939935	
-	GHG intensity (Scope 1 and 2)	tCO2e/MYRm rev	NA	NA	4.7	3.6	NA	
	Energy consumed	MWh	NA	22111	32214	30168	157982	
	Share of renewable energy use in operations	%	NA	Negligible	4.2%	22.3%	5.7%	
	Waste recycled	%	NA	0.3%	9.2%	5.6%	10.6%	
	Cases of environmental non-compliance	number	0	0	0	0	0	
	% of women in workforce	%	31.1%	35.0%	36.0%	37.6%	31.0%	
	% of women in management	%	30.0%	30.0%	31.0%	31.8%	31.2%	
S	Lost time injury frequency (LTIF) rate - GEngg	number	1.27	2.18	0.00	0.00	0.80	
3	Lost time injury frequency (LTIF) rate - GLand	number	NA	0.00	0.00	0.00	NA	
	Enabling Academy (pax trained since 2017)	number	63	66	86	96	NA	
	Gamuda scholarship (pax supported fr 1996)	number	444	471	524	603	>370	
	MD/CEO remuneration as % of PBT	%	0.97%	0.56%	0.43%	0.28%	0.26%	
G	Board (ex-CEO) remuneration as % of PBT	%	1.51%	0.86%	0.66%	0.55%	0.27%	
9	Independent directors on the Board	%	57%	57%	57%	57%	64%	
	Female directors on the Board	%	43%	43%	57%	57%	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 Gamuda Green Plan 2025 is a strategic roadmap towards driving sustainability. A Sustainability Steering Committee reports to the Board.
- b) Is the senior management salary linked to fulfilling ESG targets?

 Yes sustainability related KPIs have been incorporated in performance evaluation of all employees since FY21, including senior management, and they account for up to 50% of the KPI weighting.
- C) Does the company follow the task force of climate related disclosures (TCFD) framework for ESG reporting? Yes - besides TCFD, Gamuda has aligned its sustainability reporting to Sustainability Accounting Standards Board (SASB) and Carbon Disclosure Project (CDP).
- d) Does the company have a mechanism to capture Scope 3 emissions which parameters are captured? Yes - in FY23, Gamuda broadened its disclosure of Scope 3 emissions to 8 categories from 1 previously.
- e) What are the 2-3 key carbon mitigation/water/waste management strategies adopted by the company? Gamuda has planted >600,000 trees as at end-FY23, meeting >60% of its target for 1m trees by 2023. It has developed 1,665 acres of green/waterscapes across 12 urban forest clusters within its property townships (target 2,000 acres by 2025). Gamuda has also installed solar PV panels on its 10 assets (generating capacity of 3,143kWp) as it targets to develop over 800MW of its own RE assets.
- 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

arget	Achieved
Net-0	N/A
1 mil	>60%
WMO	39MW
GBI	Yes
R30m	MYR20m
FY24	in FY23
2.0%	Not disclosed
C	Farget Net-0 1 mil 00MW GBI R30m FY24 2.0%

As per our ESG matrix, Gamuda (GAM MK) has an overall score of 75.

ESG score	Weights	Scores	Final Score
Quantitative	50%	67	33
Qualitative	25%	100	25
Target	25%	67	17
Total			75

As per our ESG assessment, GAM has an established framework, internal policies, and tangible mid/long-term targets. GAM's overall ESG score is 75, which makes its ESG rating above-average, in our view (average ESG rating = 50; refer to Appendix I for our ESG Assessment Scoring).



Female directors on the Board

Sur	nway Construction Group (SCGI	3 MK)				REA	L ESTATE
		Quantitative parame	eters (Score:	44)			
							IJW WK
	Particulars	Unit	FY20	FY21	FY22	FY23	(FY24)
	Scope 1 GHG emissions	tCO2e	9713	6104	7167	7440	20820
	Scope 2 GHG emissions	tCO2e	2793	3863	4505	6997	51430
	Total	tCO2e	12506	9967	11672	14437	72250
	Scope 3 GHG emissions	tCO2e	139395	144401	168888	314414	867685
	Total	tCO2e	151901	154368	180560	328851	939935
Ε	GHG intensity (Scope 1 and 2)	tCO2e/MYR'm rev	98	89	84	123	NA
	Energy consumed	MWh	NA	30470	32841	37406	157982
	Share of renewable energy use in ops	%	NA	1.2%	0.6%	1.0%	5.7%
	Water recycled	%	NA	3.2%	11.2%	12.2%	NA
	Waste diversion from landfill	%	NA	NA	22.5%	19.9%	10.6%
	Cases of environmental non-compliance	number	0	0	0	0	0
	% of women in workforce	%	15.7%	19.2%	15.6%	16.0%	31.0%
	% of women in management	%	26.0%	26.0%	28.0%	29.0%	31.2%
S	Lost time injury rate (LTIR)	per 1,000 workers	0.54	0.16	0.44	0.15	0.80
	Ave. no. of training hours per employee	hours	23.1	17.5	23.8	35.7	NA
	Corporate philanthropy contribution	MYR'm	0.6	1.5	2.09	2.63	1.30
	MD/CEO remuneration as % of PBT	%	1.19%	1.68%	2.07%	1.56%	0.26%
G	Board (ex-CEO) remuneration as % of PBT	%	1.75%	1.72%	1.35%	1.35%	0.27%
	Independent directors on the Board	%	57%	63%	63%	63%	64%

Qualitative parameters (Score: 100)

14%

25%

25%

25%

27%

- Is there an ESG policy in place and whether there is a standalone ESG committee or is it part of a risk committee? Yes, SCGB has a Sustainability Policy. In 2021, SCGB set up a Board Sustainability Committee comprising 3 Directors to assist the Board in overseeing matters pertaining to sustainability and climate change. The Committee is supported by a Sustainability Working Team.
- b) Is the senior management salary linked to fulfilling ESG targets? Yes, SCGB integrated sustainability in Executive Directors and senior management's performance evaluation which are linked to remuneration. The sustainability category of performance KPIs carries a 10% weighting.
- Does the company follow the Task Force on Climate-Related Financial Disclosures (TCFD) framework for ESG reporting? Yes, SCGB signed up as an official supporter of TCFD in Jan 2021 and has since adopted its Risk Management recommendations and framework for the assessment of climate-related risks and opportunities.
- d) Does the company have a mechanism to capture Scope 3 emissions which parameters are captured? Yes, SCGB currently focuses on 4 out of 15 parameters, ie. waste generated in operations, business travel (land & air), purchased goods & services, and employee commuting (new parameter which SCGB started tracking in FY23).
- What are the 2-3 key carbon mitigation/water/waste management strategies adopted by the company? Use of solar energy as alternate energy source at building assets (precast plant in Senai, Sunway Enterprise Park, Sunway City); water recycling which includes using water from silt traps and reusing water from wheel washing bays; construction waste recycling (concrete waste is used as crusher run, timber waste is reused for signage, storage facilities).
- Does carbon offset form part of the net zero/carbon neutrality target of the company? Yes, SCGB will leverage on carbon offset credits generated by its solar investment projects, as a Scope 2 carbon reduction strategy.

Target (Score: 100)		
Particulars	Target	Achieved
Net Zero Carbon Emissions	2050	N/A
"E" target - 40% reduction in Scope 1 emission by 2030 (vs. 2020)	40%	23.4%
"E" target - 40% reduction in Scope 2 emission by 2030 (vs. 2020)	40%	0.9%
"S" target - zero confirmed incidents on human rights violation	Zero	Zero
"G" target - zero confirmed bribery & corruption incidents	Zero	Zero
"G" target - include ESG criteria in major suppliers' selection process by 2026	2026	N/A
Impact		
NA		
Overall score: 72		
As per our ESG matrix, Sunway Construction (SCGB MK) has an overall score of 72.		

ESG score	Weights	Scores	Final Score
Quantitative	50%	44	22
Qualitative	25%	100	25
Target	25%	100	25
Total			72

As per our ESG assessment, SCGB has an established framework, internal policies, and tangible mid/long-term targets. SCGB's overall ESG score is 72, which makes its ESG rating above-average, in our view (average ESG rating = 50; refer to Appendix I for our ESG Assessment Scoring).

November 19, 2024



Eco World Development (ECW MK)

REAL ESTATE

	Quantitative Parameters (Score: 38)							
	Particulars	Unit	2021	2022	2023	SPSB MK (2023)		
	Scope 1 GHG emissions	tCO2e	332	546	595	457		
	Scope 2 GHG emissions	tCO2e	5,607	5,978	5,923	12,429		
	Total	tCO2e	5,939	6,524	6,518	12,886		
	Scope 3 GHG emissions	tCO2e	NA	2,680	3,673	NA		
	Total	tCO2e	NA	9,204	10,191	NA		
		tCO2e/rev						
E	GHG intensity (Scope 1 and 2)	RMm	2.9	3.2	2.9	2.9		
	Energy intensity (managed assets)	KWh/sq. m	0.10	0.11	0.12	NA		
	Water intensity	cu. m/sq. m	1.2	0.8	0.9	NA		
	Waste generated intensity (Scope 3)	tCO2e/MT	0.0	0.3	0.4	NA		
	Total waste recycled	%	NA	12	20	73		
	Green certification for new and existing							
	projects	%	70	89	89	NA		
	% of women in workforce	%	43	44	45	46		
c	% of women in management roles	%	49	49	55	37		
3	Lost time injury frequency (LTIF) rate		0.02	0.04	0.01	0.7		
	Training hours per employee	number	13	18	26	29		
	MD/CEO salary as % of reported net profit	%	1.1	1.1	2.4	1.1		
G	Board salary as % of reported net profit	%	4.5	20.0	13.6	2.2		
G	Independent directors on the Board	%	54	58	55	60		
	Female directors on the Board	%	31	33	36	30		

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. The Sustainability Committee (SC) was established in 2017 to assist the Board in the implementation of ECW's sustainability goals and initiatives. The SC is chaired by the CEO and comprises key senior management across all disciplines, regions of operation and support functions.
- b) Is the senior management salary linked to fulfilling ESG targets?
- 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. ECW started Scope 3 GHG emissions reporting in 2022. ECW's reported Scope 3 emissions include employee commuting, business travel encompassing both air and land transportation, and this has expanded to include waste generated in FY23.
- f) What are the 2-3 key carbon mitigation/water/waste management strategies adopted by the company?

 <u>Energy efficiency</u>: Installed Solar PV system and EV charging stations. <u>Water mgmt</u>: Water from detention ponds, underground rainwater harvesting systems and bio-effluents for landscaping and cleaning are utilised, thus conserving and reducing consumption of potable water. Waste mgmt: ECW repurposes excess materials including concrete and bricks by crushing them and

using the resulting hard materials to create stable foundation for temporary access roads within its construction sites.

- g) Does carbon offset form part of the net zero/carbon neutrality target of the company?
- Yes. ECW places a significant emphasis on carbon offset initiatives to neutralise any residual emissions that prove challenging to eradicate.

Toward (Source 400)		
Target (Score: 100)		
Particulars	Target	Achieved
To reduce Scope 2 GHG emissions by 20% by 2025 and 30% by 2030 compared to FY19 baseline		
(6,976 tCO2e). Net Zero GHG emissions by 2050.	20%	NA
Zero workplace fatalities, including contractors, across all project sites	100%	100%
Providing open spaces and a natural environment	15%	22%
Contributing to the local community to achieve 1,500 CSR hours	1,500	2,041
Opportunities for employee training	82%	98%
To achieve an employee satisfaction score of 82% or higher	≥82%	98%
Obtain a min "certified" rating from a Green Accreditation body for 100% of new & existing projects	100%	89%
Impact		
NA		
Overall Score: 69		
As per our ESG matrix, Eco World Development (ECW MK) has an overall score of 69.		

ESG score	Weights	Scores	Final Score
Quantitative	50%	38	19
Qualitative	25%	100	25
Target	25%	100	25
Total			69

As per our ESG assessment, ECW has an established framework, internal policies, and tangible mid/long-term targets but needs to make headway in improving its quantitative "E" metrics YoY. ECW'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).



IJM Corporation (IJM MK)	REAL ESTATE
Quantitative parameters (Score: 56)	
	GAM MK

	Quantitative parameters (Score: 56)										
	Particulars	Unit	FY20	FY21	FY22	FY23	FY24	GAM MK (FY23)			
	Scope 1 GHG emissions	tCO2e	14769	12167	28312	39681	20820	6718			
	Scope 2 GHG emissions	tCO2e	2028	1796	38995	54202	51430	20107			
	Total	tCO2e	16797	13963	67307	93883	72250	26825			
	Scope 3 GHG emissions	tCO2e	21314	19227	365818	837684	867685	130008			
	Total	tCO2e	38111	33190	433125	931567	939935	156833			
E	GHG intensity (Scope 1 and 2)	tCO2e/MYR' m revenue	NA	NA	NA	NA	NA	3.6			
	Energy consumed	MWh	48420	42727	69455	221258	157982	30168			
	Share of RE use in operations	%	NA	NA	4.0%	1.9%	5.7%	22.3%			
	Waste reused and recycled	%	NA	NA	7.7%	21.5%	10.6%	5.6%			
	Cases of environmental non-compliance	number	1	1	1	1	0	0			
	% of women in workforce	%	33.3%	33.3%	36.0%	28.3%	31.0%	37.6%			
S	% of women in management	%	31.0%	31.6%	33.6%	31.1%	31.2%	31.8%			
3	Lost time injury frequency (LTIF) rate	number	2.92	1.30	0.60	1.20	0.80	0.00			
	Community investments as % of PBT	%	1.2%	0.6%	1.4%	0.5%	0.1%	NA			
	Scholarship (pax supported since 1994)	number	>330	340	>350	>360	>370	603			
	MD/CEO remuneration as % of PBT	%	2.04%	0.33%	0.65%	1.84%	0.26%	0.28%			
	Board (ex-CEO) remuneration as % of PBT	%	0.65%	0.72%	1.35%	0.53%	0.27%	0.55%			
G	Independent directors on the Board	%	70%	64%	55%	60%	64%	57 %			
	Female directors on the Board	%	20%	18%	18%	30%	27%	57%			

Qualitative Paramaters (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 IJM's Risk Management & Sustainability Committee (comprising Board members) was established in Nov 2023, supported by the Operating Committee (management level) which oversees the execution of sustainability initiatives, and a Group Sustainability Steering Team (management level) which oversees the group's Sustainability Roadmap and Climate Strategy.
- 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 FY25.
- Does the company follow the Task Force on Climate-Related Financial 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 FY24, IJM collated 8 categories under Scope 3 of its Malaysia & India ops purchased goods & services, upstream transportation & distribution, waste generated, business travels, employee commuting, use of sold products, downstream leased assets, investments.
- e) What are the 2-3 key carbon mitigation/water/waste management strategies adopted by the company? IJM conducted a group-wide carbon assessment to build its emissions profile to help formulate its Climate Strategy (R₂O), introduced in 2023. The Industry Div successfully replaced 12.8% of cement content with non-cementitious material in the composition of concrete spun piles in FY24. In FY24, IJM's RE generation capacity expanded to 8,050 kWp due to newly commissioned solar PV panels at ICP Klang & Kuantan factories, and at Kuantan Port. Its SMART IBS plant, opened in FY22, helps to lessen wastages compared to conventional construction methods.
- f) Does carbon offset form part of the net zero/carbon neutrality target of the company? Not yet, the focus is on carbon reduction for its operations.

Target (Score: 75)					
Particulars	Target	Achieved			
Scope 1 net-0 by 2050; Scope 2 net-0 by 2035; Scope 3 (Operational emissions - Cat 4, 5, 6) net-0 by 2050; Scope 3 (Embodied emissions - Cat 1) to engage with supply chain for low carbon plans by 2027	Net-0	N/A			
100% RE in operations by 2035	100% RE	5.7%			
Zero fatality & zero accident at all site ops	Zero	No			
"Green" projects to replenish its construction orderbook	Green	Yes			
Impact					

. NA

Overall score: 68

As per our ESG matrix, IJM Corporation (IJM MK) has an overall score of 68.

ESG score	Weights	Scores	Final Score
Quantitative	50%	56	28
Qualitative	25%	83	21
Target	25%	75	19
Total			68

As per our ESG assessment, IJM has an established framework, internal policies, and tangible mid/long-term targets. IJM'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).



Sunway Berhad (SWB MK)

REAL ESTATE

	Quantitative Parameters (Score: 29)							
	Particulars	Unit	FY21	FY22	FY23	GAM MK (FY23)		
	Scope 1 emissions	tCO2e	50,255.0	56,596.0	104,355.0	6,718.0		
	Scope 2 emissions	tCO2e	53,570.0	70,696.0	188,898.0	20,107.0		
	Total	tCO2e	103,825.0	127,292.0	293,253.0	26,825.0		
	Scope 3 emissions	tCO2e	51,367.0	75,376.0	125,940.0	130,008.0		
	Total	tCO2e	155,192.0	202,668.0	419,193.0	156,833		
F	GHG intensity (Scope 1 and 2)	tCO2e/rev MYRm	27.9	24.5	57.1	3.6		
ļ.,	Energy intensity (managed assets)	MWh/sq.m	0.1	0.2	0.3	NA		
	Water intensity (managed assets)	cu. m/sq. m	1.7	2.0	2.4	NA		
	Treated + harvested water as % of							
	consumption	%	29	30	25	NA		
	Waste diverted from landfill	%	3.8	4.0	7.8	6%		
	Share of renewable energy use	%	3	3	3	22.3		
	Proportion of women in the workforce	%	53	54	57	38		
c	Women in Sr management (EG 9 and above)	%	31	35	36	32		
3	Proportion of locals as new hires	%	97	97	100	NA		
	Lost time injury frequency (LTIF) rate	number	1.8	2.9	0.6	0.0		
	Training hours per employee	number	26	42	41	NA		
	MD/CEO salary as % of reported net profit	%	1.0	1.1	1.1	0.3		
G	Board salary as % of reported net profit	%	5.6	6.0	5.3	0.6		
0	Independent directors on the Board	%	64	70	70	57		
	Female directors on the Board	%	30	40	40	57		

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 SWB 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-executive directors.
- b) Is the senior management salary linked to fulfilling ESG targets?

Yes.

- c) Does the company follow the Task Force of Climate-Related Financial Disclosures (TCFD) framework for ESG reporting? Yes.
- e) Does the company have a mechanism to capture Scope 3 emissions which parameters are captured?
- Yes, Scope 3 captures purchased goods and services, waste, business travel, employee commuting and downstream leased assets.
- f) What are the 2-3 key carbon mitigation enery/water/waste management strategies adopted by the company?

<u>Energy efficiency</u>: Since 2018, SWB has been installing solar panels in its buildings to generate clean energy. In 2023, SWB installed solar panels in two more buildings, namely Sunway Putra Mall and Sunway International School SCKL. It generated a total of 12,002 MWh (+23% YoY) of renewable energy in 2023.

<u>Water mgmt</u>: SWB invested in an MYR18m water treatment plant in Sunway City KL in 2019. The treatment plant recycles water from the city's lakes to produce potable drinking water, enabling SWB to reduce its water consumption cost.

<u>Waste mgmt</u>: In Sunway City Iskandar Puteri (SCIP), food waste is being composted using black soldier fly larvae and through landscape composting. SCIP provides waste recycling stations within its development and hosts a recyclable waste drop-off station.

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

Yes. To get to net zero carbon emissions by 2050, SWB plans to focus on carbon offset technology.

Target (Score: 100)					
Particulars	Target	Achieved			
Electricity from renewable energy sources by 2030	40%	7%			
Waste diverted from landfills by 2030	40%	8%			
To reduce overall water intensity by 2030 (Baseline year: 2015)	-10%	+16%			
All industrial property sites to be ISO 14001:2015 (Environmental Management Systems) - certified by 2030	100%	100%			
To reduce the occupational accident rate to 0.95 for every 1,000 workers, which is within quadrant 1 of the DOSH national accident rate, by 2030	1%	4%			
Reduction in residual CO2 emission by 2030	-45%	N/A			
Net Zero by 2050	2050	N/A			
Impact					
NA					
Overall Score: 65					
As per our ESG matrix, Sunway Berhad (SWB MK) has an overall score of 65.					

ESG score	Weights	Scores	Final Score
Quantitative	50%	29	15
Qualitative	25%	100	25
Target	25%	100	25
Sīme Darby Pi	65		

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" metrics YoY. SWB's overall ESG score is 65, which makes its ESG rating above average in our view (average ESG rating = 50; refer to Appendix I for our ESG Assessment Scoring).

Quantitative Parameters (Score: 47)



1	Particulars	Unit	FY21	FY22	FY23	SPSB MK (FY23)
	Scope 1 emissions	tCO2e	456.7	754.1	537.2	457.0
	Scope 2 emissions	tCO2e	14,349.9	16,281.9	15,849.5	12429.0
	Total	tCO2e	14,806.6	17,035.9	16,386.7	12,886.0
	Scope 3 emissions	tCO2e	NA	NA	1,989.3	NA
F	Total	tCO2e	14,806.6	17,035.9	18,376.0	NA
_	GHG intensity (Scope 1 and 2)	tCO2e/rev MYRm	6.7	6.2	4.8	2.9
	Energy intensity	GJ/sq. m	0.33	0.39	0.38	NA
	Water intensity (managed assets)	cu. m/sq. m	0.13	0.16	NA	NA
	Total waste recycled	%	8%	29 %	25%	73%
	Renewable energy	MWh	406	556	NA	60.5
	% of women in workforce	%	43	44	44	46
c	% of women in Sr management	%	29	34	36	37
3	Lost time injury frequency (LTIF) rate	number	0.08	0.11	0.57	0.7
	Training hours per employee	number	18	70	49	29
	MD/CEO salary as % of reported net					
	profit	%	1.4	1.3	1.3	1.1
G	Board salary as % of reported net profit	%	4.7	2.5	2.2	2.2
	Independent directors on the Board	%	70	60	55	50
	Female directors on the Board	%	30	30	36	30

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 SDPR has an established sustainability framework/handbook and a sustainability committee. SDPR has set up a Management Sustainability Committee in Sep 2022 and Board Sustainability Committee in Jan 2023.
- b) Is the senior management salary linked to fulfilling ESG targets?
- c) Does the company follow the Task Force on Climate-Related Financial Disclosures (TCFD) framework for ESG reporting? Yes, for TCFD reporting.
- e) Does the company have a mechanism to capture Scope 3 emissions which parameters are captured? Yes. Started reporting in 2023 waste, business travel, employee commuting.
- f) What are the 2-3 key carbon mitigation/water/waste management strategies adopted by the company?

 <u>Energy efficiency</u>: SDPR is launching a solar energy project in the City of Elmina to support the National Energy Transition

 Roadmap. It is leading the shift towards renewable energy with residential, commercial, and large-scale solar projects. SDPR has also signed a MOU with TNB to explore and develop sustainable initiatives for higher revenue generation.

<u>Water mgmt</u>: In Bandar Bukit Raja, SDPR has established an urban wetland system combining grey and green infrastructure to enhance water storage capacity and mitigate flood risks via the development of a 180-acre urban wetland system.

<u>Waste mgmt</u>: SDPR implements no single-use plastic policy at construction sites. It has also established on-site sorting stations

for the segregation and recycling of construction materials like concrete, metal and wood.

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

No. SDPR is formulating a net zero strategy. In addition, SDPR has planted trees across its various properties with a target of 160,000 trees across its townships by 2030.

Target (Score: 60)		
Particulars	Target	Achieved
Reduction in Scope 1 & 2 emissions by 40% by 2030	-40%	NA
Strive to achieve 40% of waste diverted from landfill annually	40%	25%
30% reduction in operational water intensity by 2030	-30%	-18%
Net zero by 2050	2050	NA
Plant 160,000 trees by 2030	160,000	143,679
Impact		
NA		
Overall Score: 63		
As per our ESG matrix, Sime Darby Property (SDPR MK) has an overall score of 63.		

ESG score	Weights	Scores	Final Score
Quantitative	50%	47	23
Qualitative	25%	100	25
Target	25%	60	15
Total			63

As per our ESG assessment, SDPR has an established framework, internal policies, and tangible mid/long-term targets but needs to make headway in improving its quantitative "E" metrics YoY. SDPR'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).



UEM Sunrise Berhad (UEMS MK)

REAL ESTATE

	Quantitative Parameters (Score: 25)						
	Particulars	Unit	FY21	FY22	FY23	SPSB MK (FY23)	
	Scope 1 emissions	tCO2e	1882.0	4501.0	12368.0	457.0	
	Scope 2 emissions	tCO2e	2147.0	2076.0	2217.0	12,429.0	
	Total	tCO2e	4,029.0	6,577.0	14,585.0	12,886.0	
	Scope 3 emissions	tCO2e	NA	381.0	1,098.4	NA	
	Total	tCO2e	4,029.0	6,958.0	15,683.4	12,886.0	
Ε	GHG intensity (Scope 1 and 2)	tCO2e/rev MYRm	3.4	4.5	10.9	2.9	
	Energy intensity (project sites)	MWh/rev MYRm	66.94	14.82	49.70	NA	
	Water intensity (managed assets)	cu. m/rev MYRm	648.4	878.6	360.3	NA	
	Waste intensity	(ton/rev MYRm	0.3	6.3	3.9	NA	
	Total waste recycled	%	NA	1.6%	1.6%	73%	
	Renewable energy	%	NA	NA	NA	61	
	Proportion of women in the workforce	%	51	54	55	46	
	Women in Sr management	%	47	48	49	37	
S	Lost time injury frequency (LTIF) rate (inclu	dng					
	non-employee)	Rate	0.04	0.04	0.0	0.7	
	Training hours per employee	number	15	23	24	29	
	MD/CEO salary as % of reported net profit	%	NA	NA	NA	1.1	
G	Board salary as % of reported net profit	%	-1.2	1.6	1.6	2.2	
9	Independent directors on the Board	%	56	56	60	60	
	Female directors on the Board	%	33	33	30	30	

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 there is a Board Governance & Risk Committee which assists the Board. There is a executive team which monitors, guides and tracks sustainability-related KPI.
- b) Is the senior management salary linked to fulfilling ESG targets? Yes.
- c) Does the company follow the Task Force on Climate-Related Financial 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? Installation of EV charging points, rooftop solar PV, waste recycling, installation of Automated Waste Collection System, and adoption of water-efficient technologies and practices such as low-flow fixtures for Water Closet (WC), and water recycling systems.
- g) Does carbon offset form part of the net zero/carbon neutrality target of the company? Yes. UEMS targets to plant 25,000 trees along with its partners

Target (Score: 100)					
Particulars	Target	Achieved			
Achieving 20% total reduction in carbon emissions, energy consumption and waste generation by 2030	20%	NA			
Achieving 60% total reduction in carbon emissions, energy consumption and waste generation by 2040	60%	NA			
Carbon neutrality by 2050	2,050	NA			
Plant 25,000 trees by 2028	25,000	9,800			

Impact

NA

Overall Score: 63

As per our ESG matrix, UEM Sunrise Berhad (UEMS MK) has an overall score of 63.

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, UEMS has an established framework, internal policies, and tangible mid/long-term targets but needs to make headway in improving its quantitative "E" metrics YoY. UEMS'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).



Eco World International (ECWI MK)

REAL ESTATE

	Quantitative Parameters (Score: 40)					
	Particulars	Unit	FY21	FY22	FY23	SPSB MK (FY23)
	Scope 1 GHG emissions	tCO2e	652.6	3.3	3.4	457
	Scope 2 GHG emissions	tCO2e	497.5	132.5	103.8	12,429
	Total	tCO2e	1,150	136	107	12,886
	Scope 3 GHG emissions	tCO2e	NA	28,778	12,574	NA
	Total	tCO2e	1,150	28,914	12,681	NA
Ε	GHG intensity (Scope 1 and 2)	: CO2e/Rev MYRm	2.0	0.8	1.0	2.9
	Energy intensity	MWh/MYR m	8.3	2.7	3.3	NA
	Water intensity	cu. m/MYR m	8.6	36.5	40.1	NA
	Total waste recycled	%	91	88	100	73
	Green certification for new and existing	%	NA	NA	NA	NA
	projects					
	% of women in workforce	%	43	48	39	46
S	% of women in senior management roles	%	NA	NA	50	37
3	Lost time injury frequency (LTIF) rate	number	NA	NA	0.0	0.7
	Lives impacted by CSR outreach ('000)	number	81	86	68	29
	WD/CFO	0/	2.4	4.4	4.0	4.4
	MD/CEO salary as % of reported net profit/lo		2.1	-1.1	-1.9	1.1
G	Board salary as % of reported net profit/loss	%	5.6	-3.1	-5.4	2.2
	Independent directors on the Board	%	60	55	50	60
	Female directors on the Board	%	27	27	30	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 a risk committee? Yes. The Sustainability Committee (SC) is established to assist the Board in the implementation of sustainability goals and initiatives. The SC is chaired by the CEO and comprises key senior management across all disciplines, regions of operation and support functions.
- b) Is the senior management salary linked to fulfilling ESG targets? No.
- c) Does the company follow the Task Force on Climate-Related Financial Disclosures (TCFD) framework for ESG reporting? Yes.
- e) Does the company have a mechanism to capture Scope 3 emissions which parameters are captured?
- Yes. ECWI has started Scope 3 GHG emissions reporting since FY22. Its reported Scope 3 emissions including employee commuting, business travel encompassing both air and land transportation, and this has expanded to include fuel used in construction.
- f) What are the 2-3 key carbon mitigation/water/waste management strategies adopted by the company?
- ECWI has directed contractors to procure 100% renewable energy; offices use 100% green energy; close to 100% waste are diverted away from landfill; water-saving measures like rainwater harvesting and water-efficient fittings are implemented, alongside regular checks for leaks and drips.
- g) Does carbon offset form part of the net zero/carbon neutrality target of the company? No.

Target (Score: 100)				
Particulars	Target	Achieved		
Net Zero in business operations in London by no later than 2025	2025	NA		
To ensure all future developments are Net Zero by no later than 2040	2040	NA		
All developments are water neutral and achieve net environmental gain on sites by 2035	2035	NA		
Ensure at least 90% of the construction waste is diverted from landfill	90%	98%		
Impact				
NA				
Overall Score: 62				
As per our ESG matrix, Eco World International (ECWI MK) has an overall score of 62.				

ESG score	Weights	Scores	Final Score
Quantitative	50%	40	20
Qualitative	25%	67	17
Target	25%	100	25
Total			62

As per our ESG assessment, ECWI has an established framework, internal policies, and tangible mid/long-term targets but needs to make headway in improving its quantitative "E" metrics YoY. ECWI's 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).



SP Setia Berhad (SPSB MK)

REAL ESTATE

	Quantitative Parameters (Score: 50)					
	Particulars	Unit	FY21	FY22	FY23	SDPR MK (FY23)
	Scope 1 emissions	k tCO2e	NA	NA	457	537
	Scope 2 emissions	k tCO2e	NA	NA	12,429	15,850
	Total	k tCO2e	Na	NA	12,886	16,387
	Scope 3 emissions	k tCO2e	NA	NA	NA	NA
Е	Total	k tCO2e	NA	NA	NA	NA
-	GHG intensity (Scope 1 and 2)	tCO2e/rev RMm	NA	NA	2.9	4.8
	Energy intensity	kWh/m2	13.15	12.19	NA	0.4
	Water intensity (managed assets)	cu. m/sq. m	0.25	0.52	NA	NA
	Total waste recycled	%	NA	NA	73.0	24
	Renewable energy	MWh	NA	NA	61	NA
	Proportion of women in the workforce	%	44	45	46	44
s	Women in Sr management	%	32	32	37	36
3	Customer satisfaction survey	%	73.0	75.2	75.5	NA
	Incident rate	Index	NA	NA	0.7	0.6
	Training hours per employee	number	18	25	29	NA
	MD/CEO salary as % of reported net profit	%	1.2	1.14	1.08	1.3
	Board salary as % of reported net profit	%	2.2	2.4	2.2	2.2
G	Independent directors on the Board (tenure					
	<10 yrs)	%	60	67	100	82
	Female directors on the Board	%	30	33	30	36

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 SPSB has an established sustainability framework/handbook and a sustainability committee that is led by 3 independent Non-Executive Directors and a non-independent Non-Executive Director.
- b) Is the senior management salary linked to fulfilling 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. It has started embracing the TCFD recommendations and has linked emissions reduction with SPSB's business strategy via TCFD. Does the company have a mechanism to capture Scope 3 emissions which parameters are captured?
- No. SPSB is in the process of completing its baseline assessment and setting interim targets for Scope 3 emissions.
- f) What are the 2-3 key carbon mitigation/water/waste management strategies adopted by the company?

<u>Energy efficiency</u>: SPSB is progressively introducing green solutions such as solar panel systems, energy-efficient lighting, and solar water heater systems. SPSB also provides necessary infrastructure such as EV chargers and solar switches that buyers can use to facilitate their use of renewable energy. <u>Water management</u>: Rainwater harvesting systems in homes will be installed across all upcoming developments. SPSB also uses lakes within its developments as water retention ponds with the water used for landscaping and irrigation purposes. <u>Waste management</u>: SPSB has adopted the IBS construction technique in its projects to reduce construction waste. It also works with licensed service providers who collect and recycle construction materials.

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

Target (Score: 60)		
Particulars	Target	Achieved
Zero tolerance for bribery and corruption	100%	100%
Zero work-related incidents resulting in Lost Time Injury and fatality	100%	2 cases
Aims to achieve net zero emissions by 2050, with mid-term targets of a 45% reduction by 2030 and a		
70% reduction by 2040 for Scope 1 and 2 emissions.	100%	NA
Women representation of 40% in senior management by 2025	40%	37%
Setia has established Health, Safety amd Environment (HSE) Inspection Score, a monthly score		
issued to each respective project across the company.	75%	85%
Impact		
NA		
Overall Scores 57		

			Overall Score: 57
As per our ESG matrix	, SP Setia Berhad	(SPSB MK) has ar	n overall score of 5

ESG score	Weights	Scores	Final Score
Quantitative	50%	50	25
Qualitative	25%	67	17
Target	25%	60	15
Total			57

As per our ESG assessment, SPSB has an established framework and internal ESG policies but needs to make headway in improving its disclosures especially on data for carbon emissions, water/electricity consumption intensity. SPSB's overall ESG score is 57, which makes its ESG rating above average, in our view (average ESG rating = 50; refer to Appendix I for our ESG Assessment Scoring).



Tambun Indah Land (TILB MK)

REAL ESTATE

	Quantitative Parameters (Score: 0)					
	Particulars	Unit	FY21	FY22	FY23	ECW MK (FY23)
	Scope 1 emissions	tCO2e	31	49	55	595.0
	Scope 2 emissions	tCO2e	149	185	262	5923.0
	Total	tCO2e	180	234	317	6,518
	Scope 3 emissions	tCO2e	38	58	162	3673
	Total	tCO2e	218	292	479	10,191
Ε	GHG intensity (Scope 1 and 2)	tCO2e/rev MYRm	0.7	1.0	1.6	2.9
	Energy intensity	MWh/rev MYRm	1.51	2.27	3.31	0.12
	Water intensity	cu. m/MYRm	13.3	8.8	27.4	0.9
	Green certification for new and existing	number	N/A	N/A	N/A	89
	projects					
	Waste diverted from landfill	%	N/A	N/A	0.1%	20
	Share of renewable energy use	%	N/A	N/A	N/A	NA
	% of women in workforce	%	63	65	60	45
S	% of women in Senior management roles	%	50	50	50	55
3	Lost time injury frequency (LTIF) rate	Rate	0	0	0	0.0
	Training hours per employee	hours	11	11	27	26
	MD/CEO salary as % of reported net profit	%	4.3	4.6	7.0	2.4
G	Board salary as % of reported net profit	%	7.6	8.2	12.9	13.6
0	Independent directors on the Board	%	43	43	38	55
	Female directors on the Board	%	43	43	43	36

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 the Board oversees the sustainability performance of the Group; its Sustainability Working Group led by the MD is responsible in implementing the programs.
- b) Is the senior management salary linked to fulfilling ESG targets? Yes.
- c) Is the company targeting on Green certification for its projects?
- Yes, TILB intends to explore Green Real Estate (GreenRE) certification in its projects.
- e) Does the company have a mechanism to capture Scope 3 emissions which parameters are captured? Yes business travel and employee commuting data.
- f) What are the 2-3 key carbon mitigation/water/waste management strategies adopted by the company?
- i) TILB incorporates LED compound lighting and implements alternative looping to reduce power consumption, ii) provision of rainwater harvesting tanks for all semi-detached and bungalow houses, and high rise projects. All TILB projects are supplied with Suruhanjaya Perkhidmatan Air Negara approved water-saving fittings to achieve water usage efficiency and iii) promote recycling practices by placing recycle bins in every stratified development. TILB also employs a sustainable approach by utilising recycled materials in various aspects of the project. For instance, Green-labelled cement and temporary hoardings and interlocking pavers are reused for show villages.
- g) Does carbon offset form part of the net zero/carbon neutrality target of the company? **No.**

Target (Score: 100)		
Particulars	Target	Achieved
CO2 emission reduction target	N/A	N/A
Minimum 75% average customer satisfaction rate for all development projects	75%	94%
100% utilisation of solar energy compound lighting for visitor carparks in all gated and gual landed projects by FY2024	arded 100%	N/A
Non compliance cases concerning ESG issues	0	0
Impact		
NA		
Overall Score: 46		
As per our FSG matrix, Tambun Indah (TILB MK) has an overall score of 46		

ESG score	Weights	Scores	Final Score
Quantitative	50%	0	0
Qualitative	25%	83	21
Target	25%	100	25
Total			46

As per our ESG assessment, TILB has an established framework, internal policies, and tangible mid/long-term targets but needs to make headway in improving its quantitative "E" metrics YoY. TILB's overall ESG score is 46, which makes its ESG rating below average in our view (average ESG rating = 50; refer to Appendix I for our ESG Assessment Scoring).



Cahya Mata Sarawak	(CMS MK)	REAL ESTATE

	Qu	antitative Parar	neters (Score	: 25)			
			•	•			IJM MK
	Particulars	Unit	FY20	FY21	FY22	FY23	(FY24)
	Scope 1 GHG emissions	tCO2e	2712	2876	3580	18451	20820
	Scope 2 GHG emissions	tCO2e	80053	43532	64804	22685	51430
	Total	tCO2e	82765	46408	68384	41136	72250
	Scope 3 GHG emissions	tCO2e	392	12	29	8420	867685
Е	Total	tCO2e	83157	46420	68413	49556	939935
, t	GHG intensity (Scope 1 and 2)	tCO2e/m2	NA	NA	NA	NA	NA
	Energy consumed	MWh	NA	NA	NA	NA	157982
	Share of renewable energy use in operations	%	NA	NA	NA	NA	5.7%
	Water / waste recycled	%	NA	NA	NA	NA	10.6%
	Cases of environmental non-compliance	number	NA	0	0	0	0
	% of women in workforce	%	20.8%	21.0%	21.0%	23.0%	31.0%
	% of women in senior management	%	NA	NA	NA	18.8%	31.2%
S		per 1,000					
3	Lost time injury rate (LTIR)	workers	5.10	16.29	2.21	2.19	0.80
	No. of employee training hours	hours	NA	4189	8700	25422	NA
	Corporate philanthropy contribution	MYR'000	1615	845	1204	3032	1275
	MD/CEO remuneration as % of PATAMI	%	0.83%	1.24%	1.28%	5.55%	0.41%
G	Board (ex-CEO) remuneration as % of PATAMI	%	1.27%	1.62%	1.09%	2.57%	0.43%
G	Independent directors on the Board (<10 yrs)	%	50%	56%	50%	63%	64%
	Female directors on the Board	%	10%	22%	25%	38%	27%

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?

 No however, a Sustainability Framework and Roadmap for 2023-25 was developed in 2023, and a Board Sustainability Committee was formed on 18 Apr 2024.
- b) Is the senior management salary linked to fulfilling ESG targets?

 No CMS targets to roll out this practice from the 2024/2025 period.
- Does the company follow the Task Force for Climate-Related Financial Disclosures (TCFD) framework for ESG reporting?

 Not yet but CMS is preparing for reporting needed under the TCFD by end-2025.
- d) Does the company have a mechanism to capture Scope 3 emissions which parameters are captured? Yes - CMS reported its Scope 3 emissions since FY20; it currently focuses on 1 out of 15 parameters, ie. business air travel.
- e) What are the 2-3 key carbon mitigation/water/waste management strategies adopted by the company?

 The Cement Division is enhancing the utilisation of its PLC-32.5N cement, known for its lower clinker content and reduced energy consumption in the manufacturing process. Additionally, the Division has implemented a closed-loop cooling water supply system, recycling water from the cooling tower to cool the plant, along with a rainwater harvesting systems installed at the Pending and Integrated Mambong Plant for general non-plant purposes. Cahya Mata Alam is in the research and development phase of innovating and converting waste such as recycled plastics, rice husk, tyres, and other post-consumer materials into a sustainable product called ThermasiteTM, which was certified with the SIRIM Eco Label in 2013.
- f) Does carbon offset form part of the net zero/carbon neutrality target of the company?
 No.

As per our ESG matrix, Cahya Mata Sarawak (CMS MK) has an overall score of 21.

	Target (Score: 0)		
Particulars		Target	Achieved
		Timeline not	
Carbon neutrality		established	N/A
	Impact		
	NA		
	Overall Scores 21		

ESG score	Weights	Scores	Final Score
Quantitative	50%	25	13
Qualitative	25%	33	8
Target	25%	0	0
Total			21

As per our ESG assessment, CMS lacks an established framework, internal policies, and tangible mid/long-term targets. It also needs to make headway in improving its "E" measurement and disclosures. CMS' overall ESG score is 25, which makes its ESG rating below-average, in our view (average ESG rating = 50; refer to Appendix I for our ESG Assessment Scoring).



Pintaras Jaya (PINT MK)

REAL ESTATE

	Quantitative parameters (Score: 6)						
	Particulars	Unit	FY21	FY22	FY23	ECON MK (FY23)	
	Scope 1 GHG emissions	tCO2e	NA	NA	NA	NA	
	Scope 2 GHG emissions	tCO2e	NA	NA	NA	NA	
	Total	tCO2e	NA	NA	NA	NA	
	Scope 3 GHG emissions	tCO2e	NA	NA	NA	NA	
Е	Total	tCO2e	NA	NA	NA	NA	
-	GHG intensity (Scope 1 and 2)	tCO2e/m2	NA	NA	NA	NA	
	Energy consumed	MWh	NA	NA	NA	NA	
	Share of renewable energy use in operations	%	NA	NA	NA	NA	
	Water / waste recycled	%	NA	NA	NA	NA	
	Cases of environmental non-compliance	number	NA	NA	NA	NA	
	% of women in workforce	%	NA	NA	17.8%	13.0%	
	% of women in management position	%	NA	NA	NA	21.0%	
s	OSH major incidences	number	NA	NA	4 (four)	0 (zero)	
	Ave. no. of training per employee	number	0.85	1.14	0.93	NA	
	Corporate philanthropy contribution	MYR'000	NA	NA	NA	MYR700k to schools	
	MD/CEO remuneration as % of PATAMI	%	1.4%	2.5%	(42.5%)	(5.4%)	
G	Board (ex-CEO) remuneration as % of PATAMI	%	4.9%	7.5%	(139.4%)	(9.9%)	
G	Independent directors on the Board (<10 yrs)	%	29%	29%	29%	43%	
	Female directors on the Board	%	14%	29%	43%	43%	

Qualitative Paramaters (Score: 17)

- Is there an ESG policy in place and whether there is a standalone ESG committee or is it part of a risk committee?
 No.
- b) Is the senior management salary linked to fulfilling ESG targets?
- c) Does the company follow the task force of climate related disclosures (TCFD) framework for ESG reporting?
- d) Does the company have a mechanism to capture Scope 3 emissions which parameters are captured?
- e) What are the 2-3 key carbon mitigation/water/waste management strategies adopted by the company?
 - 1) The group monitors every project by setting a theoretical precentage of tolerable wastage and recording the actual material wastages for raw materials; deviations are investigated and mitigated. 2) Any excess ready-mix concrete during concreting work is used to produce concrete blocks and pavers for use at project sites. 3) Large water tanks are stationed at project sites and stores to harvest rainwater for own use.
- f) Does carbon offset form part of the net zero/carbon neutrality target of the company? No.

	Target (Score: 50)	
Particulars	Target	Achieved
Tolerable avg. wastage for FY23	Steel bars 5-7%; RMC for foundation works <30%; RMC for structural works 5%	Steel bars 7-8%; RMC for foundation works 18%; RMC for structural works 5%
Net zero carbon emissions	Not set	NA

Impact	
NA	

Overall score: 20

As per our ESG matrix, Pintaras Jaya (PINT MK) has an overall score of 20.

ESG score	Weights	Scores	Final Score
Quantitative	50%	6	3
Qualitative	25%	17	4
Target	25%	50	13
Total			20

As per our ESG assessment, Pintaras lacks an established framework, internal policies, and tangible mid/long-term targets. It also needs to make headway in improving its "E" and "S" disclosures. Pintaras' overall ESG score is 20, which makes its ESG rating below-average, in our view (average ESG rating = 50; refer to Appendix I for our ESG Assessment Scoring).



CTOS Digital (CTOS MK)

TECHNOLOGY

	Qua	ntitative parameter	rs (Score: 38)			
	Particulars	Unit	FY21	FY22	FY23	* ITMAX MK (FY23)
	Scope 1 emissions	tCO2e	0.50	0.82	0.65	N/A
	Scope 2 emissions	tCO2e	323.6	407.6	371.0	N/A
	Total	tCO2e	324.1	408.4	371.7	N/A
-	Scope 3 emissions	tCO2e	N/A	N/A	N/A	N/A
-	Total	tCO2e	324.1	408.4	371.7	N/A
	Emissions intensity (per employee)	tCO2e/FTE	0.69	0.78	0.64	0.35
	Energy intensity (per employee)	MWh/FTE	1.18	1.33	1.09	N/A
	Waste management/generated	tonnes	N/A	N/A	N/A	N/A
	Proportion of women in the workforce	%	54%	59%	53%	30%
	Women in managerial roles	%	29 %	27%	23%	N/A
	Training hours per employee	no.	9	28	24	N/A
S	Customer service - quality score	%	93.06	93.77	92.67	N/A
	Employee attrition rate	%	3.3%	3.2%	2.1%	9.0%
	Labour standard non-compliance	number	0	0	0	0
	MD/CEO salary as % of reported net profit	%	4.0%	0.6%	5.8%	1.8%
	Board salary as % of reported net profit	%	5.3%	1.6%	6.6%	3.9%
G	Independent directors on the Board	%	60%	71%	67%	50%
	Female directors on the Board	%	38%	43%	50%	50%
	Cyber security breaches	number	0	0	0	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 Risk committee?
- Yes CTOS introduced its Sustainability Blueprint in 2022. The Board of Directors collectively oversee sustainability matters and delegates implementation authority to the Audit & Risk Committee. CTOS' Group Head of Corporate Strategy & Planning serves as the company's ESG champion and is accountable for sustainability culture.
- b) Is the senior management salary linked to fulfilling ESG targets? Yes.
- c) Has the company faced any anti-competitive practices, IP infringement or cyber security controversies? *No.*
- d) Does the company have a mechanism to capture Scope 3 emissions which parameters are captured? No, but CTOS has committed to start measuring Scope 3 from 2024 onwards.
- e) What are the 2-3 key carbon mitigation/water/waste management strategies adopted by the company?
- (1) Recycling all used paper & printer cartridges are returned to vendor on a monthly basis for recycling + waste disposals bins are installed; (2) Waste reduction (i) printing only when necessary & approved via e-signature, (ii) double-sided printing, and (iii) only PEFC-certified papers are allowed from suppliers.
- f) Does carbon offset form part of the net zero/carbon neutrality target of the company?
- Yes CTOS plans to introduce offsets for Scope 1 & 2 emissions in operations gradually over 5 years.

T (5		
Target (Score: 100)		
Particulars	Target	Achieved
Reducing Scope 2 GHG emissions by 15% (from 2022 baseline)	2025	N/A
Reducing Scope 3 GHG emissions by 15% (from 2022 baseline)	2030	N/A
Net zero carbon emissions (NZCE)	2050	N/A
Cyber-security - ISO 27001 certification	2025	N/A
Impact		
N/A		

* Peer Comparison

We have benchmarked CTOS' ESG metrics against that of its closest listed peer with publicly available comparable metrics - ITMAX System (ITMAX MK, BUY, TP: MYR4.25). The peer's ESG standing has been assessed separately.

ESG score	Weights	Scores	Final Score
Quantitative	50%	38	19
Qualitative	25%	100	25
Target	25%	100	25
Total			69

As per our ESG assessment, CTOS has an established framework and sound internal policies to mitigate ESG risks but needs to make headway in improving its "S" and "G" metrics. CTOS' 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).



Inari Amertron (INRI MK)

TECHNOLOGY

	Quantitative parameters (Score: 38)						
	Particulars	Unit	FY6/22	FY6/23	FY6/24	* VITRO MK (FY12/23)	
	Scope 1 GHG emissions	k tCO2e	0.5	0.3	0.3	0.022	
	Scope 2 GHG emissions	k tCO2e	78.8	80.3	87.0	3.7	
	Total	k tCO2e	79.3	80.6	87.4	3.7	
	Scope 3 GHG emissions	k tCO2e	N/A	N/A	N/A	1.3	
	Total	k tCO2e	79.3	80.6	87.4	5.0	
E	GHG intensity (Scope 1 and 2)	tCO2e/m units	4.0	5.0	5.0	6.4	
	Energy intensity	GJ/m units	21.5	27.3	27.2	12.9	
	Water intensity	m3/m units	38.0	44.0	38.0	87.8	
	Waste 3R rate (Malaysia only)	%	95.0%	92.5%	91.9%	N/A	
	Share of renewable energy use	%	>1%	>1%	>1%	22.3%	
	Cases of environmental non-compliance	number	0	0	0	0	
	Proportion of women in the workforce	%	60.0%	65.0%	63.0%	31.6%	
	% of disabled staff in employ	% (avg)	0.1%	0.1%	0.1%	N/A	
_	Employee turnover rate	% (avg)	18.1%	26.3%	24.9%	N/A	
2	Lost time injury frequency (LTIF) rate	number (avg)	0.10	0.09	0.49	1.6	
	Training hours per employee	number	10	11	14	42	
	MD/CEO salary as % of reported net profit	%	1.7%	1.6%	1.7%	0.3%	
G	Board salary as % of reported net profit	%	3.3%	3.3%	3.5%	1.1%	
G	Independent directors on the Board	%	36%	33%	38%	33%	
	Female directors on the Board	%	10%	8%	8%	44%	

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 INRI 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?
- Yes INRI is developing a methodology for collecting data that encompasses indirect emissions from business travel and employee commuting.
- 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.

Target (Score: 100)	
Particulars	Target	Achieved
Waste management 3R rate	90.0%	FY20-24
Scope 1 emission reduction for >5 years	3-5%	N/A
Scope 2 emission reduction for >5 years	2-3%	N/A
Energy consumption reduction for >5 years	3-5%	N/A
Water consumption reduction for >5 years	3-5%	N/A
Impact		
NA		
* Peer Comparison		

* Peer Comparison

We have benchmarked INRI's ESG metrics against that of its closest listed peer with publicly available comparable metrics - ViTrox Corp (VITRO MK, SELL, TP: MYR3.40). The peer's ESG standing has been assessed separately.

ESG score	Weights	Scores	Final Score
Quantitative	50%	38	19
Qualitative	25%	100	25
Target	25%	100	25
Total			69

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 improve its board diversity. INRI's overall score of 69 makes its ESG rating above average in our view (average ESG rating = 50; refer to Appendix I for our ESG Assessment Scoring).

V.S. Industry (VSI MK)

TECHNOLOGY

	Quantitative Parameters (Score: 53)							
	Particulars	Unit	FY21	FY22	FY23	ATECH (FY23)		
	Scope 1 emissions	tCO2e	540	665	720	21		
	Scope 2 emissions	tCO2e	84,183	87,114	92,152	6,560		
	Total	tCO2e	84,723	87,779	92,872	6,581		
	Scope 3 emissions	tCO2e	N/A	253	8,780	NA		
Е	Total	tCO2e	84,723	88,031	101,652	-		
-	Emissions Intensity	kg CO2e/kg/unit	0.090	0.140	0.150	0.001		
	Electricity consumption	MWh	107,928	111,685	118,717	9,835		
	Total hazardous waste disposal	tonnes	2,248	2,028	2,137	NA		
	Total water consumption	m3	755,633	858,465	819,976	69239		
	Cases of environmental non-compliance	number	N/A	0	0	0		
	% of women in workforce	%	51.7%	51.6%	55.1%	76.5%		
	% of women in the mgmt role	%	24.8%	26.9%	28.1%	11.8%		
	Total training hours	hrs/yr/emp	1.8	1.7	1.2	4.2		
S	Lost-time incident rate	rate*200,000	0.25	0.13	0.12	-		
	Employee turnover rate	%	54%	59 %	45%	2%		
	Local suppliers	%	65%	65%	64%	30%		
	Number of CSR initiatives	MYR '000	79	232	294	236		
	BOD's remuneration as % of reported net profit	%	14.5%	18.8%	20.0%	6.0%		
	Independent directors (tenure <10 years)	%	40.0%	45.5%	50.0%	100.0%		
G	Women directors as a % of the Board	%	10.0%	9.1%	16.7%	33.3%		
	% of profits returned to shareholders	%	46.4%	44.9%	47.4%	44.3%		
	Total corruption and bribery cases	number	0	0	0	0		

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 Risk Committee?
- Yes VSI has an established sustainability framework. The Board oversees the development and adoption of sustainability strategies which is led by the Risk and Compliance function at the corporate level and executed by the Risk and Sustainability Working Group headed by the respective business units' General Manager and head of corporate functions at an operational level.
- b) Are the senior management's salaries linked to fulfiling ESG targets?
- c) Does the company have human rights violation policies in place?
- d) Is the company involved in any major adverse controversies relating to labour, corruption and bribery, environmental hazards? No.
- 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?
- VSI monitors emissions, energy consumption, water usage, and waste generation within manufacturing processes, aiming to reduce greenhouse emissions through new technologies and fuel efficiency measures. In FY2023, it spent MYR12.2m in renewable energy investments like solar panels. It also established a Climate Change Policy in FY2022 to guide emissions reductions.

Target (Score: 88)				
Particulars	Target	Achieved		
Energy efficiency improvement - 10% by FY25, 20% by FY30 and 30% by FY40	10-30%	8%		
Renewable energy consumption - 5% by FY25, 10% by FY30 and 20% by FY40	5-20%	0.50%		
Reduce Scope 1 and 2 GHG emission - 15% by FY25, 20% by FY30 and 30% by FY40	15-30%	8%		
Reduce Water Usage - 10% by FY25, 20% by FY30 and 25% by FY40	10-25%	9%		
Reduce manufacturing waste - 10% by FY25, 20% by FY30 and 25% by FY40	10-25%	14%		
Reduce water effluent - 10% by FY25, 20% by FY30 and 25% by FY40	10-25%	21%		
Achieve 20% ratio of female Senior Management position by FY25 and 30% by FY30	20-30%	14%		
Achieve 20% ratio of female directors by FY25 and 30% by FY30	20-30%	10%		
Impact				
NA				

Overall Score: 69

As per our ESG matrix, VSI has an overall score of 69.

ESG score	Weights	Scores	Final Score
Quantitative	50%	53	27
Qualitative	25%	83	21
Target	25%	88	22
Total			69

As per our ESG assessment, VSI has enhanced its sustainability reporting by including more detailed disclosures and establishing quantifiable targets, addressing previous shortfalls in Board diversity and environmental pillars. VSI's latest ESG score of 69 is above its industry's average (FY22: 56), in our view (average ESG rating = 50; refer to App I for our ESG Assessment Scoring).

November 19, 2024 141

Greatech Technology (GREATEC MK)

TECHNOLOGY

	Quantitative Parameters (Score: 41)					
	Particulars	Unit	FY21	FY22	FY23	* VITRO MK (FY23)
	Scope 1 emissions	tCO2e	32.0	45.0	55.0	22.8
	Scope 2 emissions	tCO2e	3,184.0	8,384.0	9,861.0	3,676.7
	Total	tCO2e	3,216.0	8,429.0	9,916.0	3,699.5
	Scope 3 emissions	tCO2e	N/A	N/A	901.0	1,326.9
	Total	tCO2e	3,216.0	8,429.0	10,817.0	5,026.4
Ε	GHG intensity (Scope 1 and 2)	tCO2e/MYR m	8.0	15.4	15.1	6.4
	Energy intensity	MWh/MYR m	11.7	22.4	19.5	12.9
	Water intensity	m3/MYR m	2.1	4.1	5.3	87.8
	Waste diverted away from disposal	%	56%	72%	39%	43%
	Share of renewable energy use	%	N/A	N/A	4.5%	22.3%
	Cases of environmental non-compliance	number	0	0	0	0
	Proportion of women in the workforce	%	10.5%	13.0%	14.0%	31.6%
	Proportion of women in exec leader roles	%	33%	33%	33%	35.1%
c	Occupational injury severity rate (SR)	rate/1m hours	10.6	3.8	44.3	6.3
3	Lost time injury frequency rate (LTIR)	rate/1m hours	0.7	1.3	2.2	1.6
	Training hours per employee	hours	43.8	57.0	47.0	42.0
	MD/CEO salary as % of reported net profit	%	0.8%	0.7%	0.7%	0.3%
	Board salary as % of reported net profit	%	1.5%	1.4%	1.4%	1.1%
G	Independent directors on the Board	%	60%	67 %	71% 75%	33%
	Female directors on the Board	%	40%	33%	29%	44%

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 Risk committee?
- Yes GREATEC has an established sustainability framework/handbook and a sustainability working group (SWG) that is led by the Group CEO and assisted by the CFO. The SWIG reports directly to the Audit & Risk Management Board Committee.
- b) Is the senior management salary linked to fulfilling ESG targets? *No.*
- c) Does the company have a responsible sourcing policy?

Yes.

- d) Have there been any incidents of cybersecurity/data privacy breach?
- e) What are the 2-3 key carbon mitigation/water/waste management strategies adopted by the company?

Energy efficiency: Installed T5 fluorescent/LED lightbulbs in existing and new facilities + replacing old air conditioners with new generation energy-efficient ones; Water mgmt - regular maintenance of plumbing system; Waste - waste generated from cooling lubricants during metal fabrication/machining is disposed in accordance to EQR 2005, hazardous waste stored in designated chemical waste area.

f) Has the company faced any anti-competitive practices or IP infringement controversies? **No.**

Target (Score: 10	00)	
Particulars	Target	Achieved
Annual training hours per employee	36	FY23
Work-related fatalities	0	FY23
Impact		
N/A		

* Peer Comparison

We have benchmarked GREATEC's ESG metrics against that of its closest listed peer with publicly available comparable metrics - ViTrox Corp (VITRO MK, SELL, TP: MYR3.40). The peer's ESG standing has been assessed separately.

ESG score	Weights	Scores	Final Score
Quantitative	50%	41	21
Qualitative	25%	83	21
Target	25%	100	25
Total			66

As per our ESG assessment, GREATEC has an established framework and internal policies to mitigate ESG risks, but needs to make headway in improving its "E"-related metric performance. GREATEC'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).

ITMAX System Bhd (ITMAX MK)

TECHNOLOGY

	Quantitative parameters (Score: 56)					
	Particulars	Unit	FY21	FY22	FY23	* CTOS MK (FY22)
	Scope 1 emissions	tCO2e	N/A	N/A	N/A	0.82
	Scope 2 emissions	tCO2e	N/A	N/A	N/A	407.6
	Total	tCO2e	-	-	-	408.4
Е	Scope 3 emissions	tCO2e	N/A	N/A	N/A	N/A
ļ.,	Total	tCO2e	-	-	-	408.4
	Energy intensity	kWh/MYRm	5,652	3,505	3,500	1,330.0
	Water intensity	m3/MYRm	N/A	N/A	N/A	N/A
	Waste management	tonnes	N/A	N/A	N/A	N/A
	Proportion of women in the workforce	%	24%	30%	30%	59%
	Proportion of women as new hires	%	16%	33%	N/A	N/A
	Training hours per employee	no.	N/A	4.8	N/A	29.0
S	Employee turnover rate	%	22%	15%	9%	3.2%
	Labour standard non-compliance	number	0	0	0	0
	Customer satisfaction score	score	N/A	N/A	N/A	93.77
	MD/CEO salary as % of reported net profit	%	N/A	1.8%	1.8%	0.6%
G	Board salary as % of reported net profit	%	N/A	3.0%	3.9%	1.6%
	Independent directors on the Board	%	N/A	50%	50%	71%
	Female directors on the Board	%	N/A	50%	50%	43%
	Cyber security breaches	number	0	0	0	0

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 Risk committee?

Yes - ITMAX's sustainability policy is governed by a 3-tier framework that covers all levels within the group. The Board is responsible for overseeing the group's sustainability strategies and performance. It is supported by a Working Committee (WC) to this end, led by the CEO and CFO, and supported by senior management.

- b) Is the senior management salary linked to fulfilling ESG targets?
- c) Has the company faced any anti-competitive practices, IP infringement or cyber security controversies? No.
- 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?
- (1) Replacing conventional light bulbs in the offices with light-emitting diode (LED) lighting; (2) Behaviour-based programs that encourage employese to turn off lights/water when not in use.
- f) Does carbon offset form part of the net zero/carbon neutrality target of the company? No.

Target (Score: 10	0)			
Particulars	Target	Achieved		
Bribery and corruption incidents	0	0		
Customer data/privacy breaches	0	0		
Work-related fatalities	0	0		
Impact				
N/A				
* Peer Comparison				

We have benchmarked ITMAX's ESG metrics against that of its closest listed peer with publicly available comparable metrics -CTOS Digital Bhd (CTOS MK; BUY; TP: MYR1.65). The peer's ESG standing has been assessed separately.

ESG score	Weights	Scores	Final Score
Quantitative	50%	56	28
Qualitative	25%	50	13
Target	25%	100	25
Total			66

As per our ESG assessment, ITMAX has an established framework and internal policies to mitigate ESG risks but needs to make headway in improving its tangible target-setting (none presently). ITMAX'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).

November 19, 2024 143

My EG Services (MYEG MK)

TECHNOLOGY

Quantitative Parameters (Score: 40)						
	Particulars	Unit	FY21	FY22	FY23	* CTOS MK (FY23)
	Scope 1 GHG emissions	tCO2e	424.4	457.0	324.2	0.65
	Scope 2 GHG emissions	tCO2e	1,366.0	1,637.0	1,292.6	371
	Total	tCO2e	1,790.4	2,094.0	1,616.8	371.7
	Scope 3 GHG emissions	tCO2e	N/A	N/A	4,344.9	N/A
E	Total	tCO2e	1,790.4	2,094.0	5,961.8	371.7
	GHG intensity (Scope 1 and 2)	tCO2e/MYR m	2.5	3.2	2.1	0.6
	Electricity consumption intensity	MWh/MYR m	5.5	7.0	4.4	1.1
	Water consumption intensity	m3/MYR m	0.6	0.9	0.7	N/A
	Waste diverted away from disposal	%	11%	87%	10%	N/A
	% of women in workforce	%	40.0%	40.0%	40.6%	53.0%
S	% of women in senior management roles	%	15.4%	22.0%	41.7%	23.0%
	Average training hours per employee	hours	7.5	8.6	8.4	24.0
	Employee attrition rate	%	19.2%	23.4%	22.2%	2.1%
G	MD/CEO salary as % of reported net profit	%	0.4%	0.3%	0.3%	5.4%
	Board salary as % of reported net profit	%	0.2%	0.3%	0.4%	8.7%
	Independent directors on the Board	%	57%	57%	57%	64%
	Female directors on the Board	%	30%	29 %	29%	9%
	Policy, data & framework breaches	number	0	0	0	0

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 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 controversy, bribery, or breach of human right policies.
- d) Does the company have a mechanism to capture Scope 3 emissions which parameters are captured? Yes - employee commute and business travel.
- e) 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.
- f) 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 by 2035 vs 2020 baseline	-50%	N/A		
Net Zero Carbon Emissions	2050	N/A		
Impact				

N/A

* Peer Comparison

We have benchmarked MYEG's ESG metrics against that of its closest listed peer with publicly available comparable metrics - CTOS Digital (CTOS MK, BUY, TP: MYR1.65). The peer's ESG standing has been assessed separately.

ESG score	Weights	Scores	Final Score
Quantitative	50%	40	20
Qualitative	25%	83	21
Target	25%	100	25
Total			66

Per our ESG assessment, MyEG has an established sustainability framework and internal policies, but needs to improve on its employee-related metrices as well as link senior mgmt salary to the fulfilment of ESG targets. MyEG's overall ESG score is **66**, which makes it **above average** in our view (average ESG rating = 50; refer to Appendix I for our ESG Assessment Scoring).

Frontken Corp. (FRCB MK)

TECHNOLOGY

	Quantitative Parameters (Score: 29)					
	Particulars	Unit	FY21	FY22	FY23	* INRI MK (FY6/24)
	Scope 1 emissions	k tCO2e	1.4	1.7	1.6	0.3
	Scope 2 emissions	k tCO2e	10.4	10.4	12.2	87.0
	Total	k tCO2e	11.8	12.1	13.7	87.4
	Scope 3 emissions	k tCO2e	32.2	51.6	54.4	N/A
	Total	k tCO2e	44.0	63.7	68.1	87.4
Ε	GHG intensity (Scope 1 and 2)	tCO2e/MYR m	26.2	23.4	27.4	5.0
	Energy intensity	MWh/MYR m	47.3	41.0	50.6	27.2
	Water intensity	m3/MYR m	588.34	513.32	558.12	38.0
	Waste diverted away from disposal	%	97.6%	98.1%	98.2%	91.9%
	Share of renewable energy use	%	1.5%	4.4%	3.6%	>1%
	Cases of environmental non-compliance	number	0	0	0	0
	Proportion of women in the workforce	%	19.9%	17.4%	19.1%	63.0%
S	Proportion of disabled employees	%	0.57%	0.62%	1.18%	0.10%
3	Employee turnover rate	%	1.5%	2.3%	2.0%	24.9%
	Lost time injury frequency rate (LTIR)	number	0.01	0.01	0.01	0.49
	Training hours per employee (average)	hours	18.0	23.0	23.0	14.0
	MD/CEO salary as % of reported net profit	%	8.2%	9.0%	9.1%	1.7%
	Board salary as % of reported net profit	%	10.2%	10.6%	10.8%	3.5%
	Independent directors on the Board	%	50%	40%	50%	38%
	Female directors on the Board	%	1 7 %	20%	33%	8%

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 FRCB has setup a Sustainability Management Committee which supports the Board on sustainability matters.
- b) Is the senior management salary linked to fulfilling ESG targets? Yes.
- c) Does the company have a responsible sourcing policy?

Yes.

- 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?
- (i) Installation of solar PV panels at both TW and SG plants with annual power generation capacity of 530,605 kWh; (ii) installation of flow monitoring control system and the usage of energy-saving lighting. (iii) Setup of dionised water (DIW) collection system in its Taiwan plant that conserves c.15% water consumption annually.
- f) Has the company faced any anti-competitive practices or IP infringement controversies? No.

Target (Score: 100)				
Particulars	Target	Achieved		
Carbon neutrality	2050	N/A		
Reduce emissions intensity by 2035 vs. FY20 baseline	10-25%	N/A		
Reduce Scope 2 emissions intensity & energy consumption by 2035 vs. FY20 baseline	10-20%	N/A		
Reduce Scope 1 and scope 2 emissions intensity by 2050	50%	N/A		
Reduce water consumption intensity by 2050 vs. FY20 baseline	10-30%	N/A		
Reduce waste intensity by 2050 vs. FY20 baseline	10-50%	N/A		

Impact

N/A

* Peer Comparison

We have benchmarked FRCB's ESG metrics against that of its closest listed peer with publicly available comparable metrics - Inari Amertron (INRI MK, HOLD, TP: MYR3.30). The peer's ESG standing has been assessed separately.

ESG score	Weights	Scores	Final Score
Quantitative	50%	29	15
Qualitative	25%	100	25
Target	25%	100	25
Total			65

Per our ESG assessment, FRCB has an established sustainability framework and internal policies, but needs to make headway in trend improvements for its "E" metrics. FRCB's overall ESG score is 65, which makes it above average in our view (average ESG rating = 50; refer to Appendix I for our ESG Assessment Scoring).

Aurelius Technologies (ATECH MK)

TECHNOLOGY

	Quantitative Parameters (Score: 50)						
	Particulars	Unit	FY22	FY23(Jan)	FY23(Dec)	VSI (FY23)	
	Scope 1 emissions	tCO2e	14.4	30.3	21.2	719.8	
	Scope 2 emissions	tCO2e	5,947	7,582	6,560	95,152	
	Total	tCO2e	5,962	7,612	6,581	92,872	
	Scope 3 emissions	tCO2e	NA	NA	NA	8,780	
E	Total	tCO2e	-	-	-	101,652	
_	Emissions Intensity	kg CO2e/kg/unit	0.001	0.001	0.001	0.150	
	Electricity consumption	MWh	8,917	11,367	9,835	118,717	
	Total hazardous waste disposal	tonnes	NA	NA	NA	4,287	
	Total water consumption	m3	78,884	71,276	69,239	819,976	
	Cases of environmental non-compliance	number	NA	0	0	0	
	% of women in workforce	%	80.1%	76.3%	76.5%	55.1%	
	% of women in the mgmt role	%	11.9%	11.4%	11.8%	28.1	
	Total training hours	hrs/yr/emp	6.9	7.0	4.2	1.2	
S	Lost-time incident rate	number	-	19.20	-	0.12	
	Employee turnover rate	%	5%	4%	2%	45%	
	Local suppliers	%	31%	30%	30%	64%	
	Number of CSR initiatives	MYR '000	NA	NA	236	294	
	BOD's remuneration as % of reported net profit	%	5.1%	3.0%	6.0%	20.0%	
	Independent directors (tenure <10 years)	%	100.0%	100.0%	100.0%	46.2%	
G	Women directors as a % of the board	%	33.3%	43.0%	33.3%	10.0%	
	% of profits returned to shareholders	%	15.0%	19.2%	44.3%	47.4%	
	Total corruption and bribery cases	number	0	0	0	0	

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 - In FY22, it solidified its Sustainability Governance Structure and, in FY23, it formed a dedicated Sustainability Management Committee and Working Team (SWT). The SWT was subsequently restructured into (i) the Sustainability Team, managing full-time sustainability efforts; and (ii) the Implementation Team, responsible for executing initiatives and gathering departmental data.

b) Are the senior management's salaries linked to fulfiling ESG targets?

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

No, but it is committed to adhere to the CBCE Policy, which undergoes regular review by the management to ensure that the group's approach to human rights and employment practices and conduct are in compliance with regulatory requirements. The CBCE Policy encompasses key areas such as: (1) Human Rights, (2) Safety and Health, (3) Discrimination and Harassment and (4) Reporting of Violations, among others. It also extends to third-party entities engaged in business with the Group.

d) Is the company involved in any major adverse controversies relating to labor, corruption and bribery, environmental hazards? No

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

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

Some of the key initiatives include installation of solar PV System on rooftop (to achieve 35% of electricity savings by FY24E), set the average water consumption per employee at 5m³/mth, and comply with ISO140001:2015 standard, as well as the environmental and regulatory requirement to minimise waste and environmental impact.

Target (Score: 83)		
Particulars	Target	Achieved
Annual purchase from local supplier	>30%	Yes
Full compliance with government and regulatory environmental requirements	100%	Yes
To achieve electricity savings by FY24E	35%	N/A
Turnover rate	<2%	Yes
Net zero/carbon emission reduction targets	Yes	N/A
cases of corruption and fines for unethical practices	Zero	Yes
Impact		
NA		
Overall Score: 63		
As per our ESG matrix, ATECH has an overall score of 63.		

ESG score	Weights	Scores	Final Score
Quantitative	50%	50	25
Qualitative	25%	67	17
Target	25%	83	21
Total			63

As per our ESG assessment, ATECH has shown significant improvements in its sustainability reporting, with more detailed disclosures and established internal policies and targets. ATECH's latest ESG score of **63** is **above its industry's average** (FY23 Dec: 41), in our view (average ESG rating = 50; refer to App I for our ESG Assessment Scoring).

ViTrox Corp (VITRO MK)

TECHNOLOGY

	Quantitative parameters (Score: 29)						
	Particulars	Unit	FY21	FY22	FY23	* GREATEC MK (FY23)	
	Scope 1 emissions	tCO2e	8.9	12.3	22.8	55.0	
	Scope 2 emissions	tCO2e	3,075.1	3,852.4	3,676.7	9,861.0	
	Total	tCO2e	3,084.0	3,864.7	3,699.5	9,916.0	
	Scope 3 emissions	tCO2e	N/A	N/A	1,326.9	901.0	
	Total	tCO2e	3,084.0	3,864.7	5,026.4	10,817.0	
Ε	GHG intensity (Scope 2)	tCO2e/MYRm	4.5	5.2	6.4	15.1	
	Energy intensity	MWh/MYRm	8.1	9.1	12.9	19.5	
	Water intensity	m3/MYRm	47.6	55.3	87.8	5.3	
	Waste recycled/diverted away from disposal	%	61%	44%	43%	39%	
	Share of renewable energy use	%	12.5%	11.9%	22.3%	4.5%	
	Cases of environmental non-compliance	number	0	0	0	0	
	Proportion of women in the workforce	%	30.0%	31.3%	31.6%	14.0%	
S	Proportion of women in exec leader roles	%	23%	30%	35%	33%	
2	Incident rate (IR)	rate/1m hrs	2.4	5.4	6.3	44.3	
	Lost time incident frequency rate (LTIR)	rate/1m hrs	1.2	2.1	1.6	2.2	
	Training hours per employee	hours	41.0	46.0	42.0	47.0	
	MD/CEO salary as % of reported net profit	%	0.3%	0.2%	0.3%	0.7%	
	Board salary as % of reported net profit	%	0.9%	0.7%	1.1%	1.4%	
G	Independent directors on the Board	%	57 %	33%	33%	75%	
	Female directors on the Board	%	29 %	44%	44%	29%	

Qualitative Paramaters (Score: 83)

- a) Is there an ESG policy in place and whether there is a standalone ESG Committee or is it part of Risk Committee?
- Yes VITRO 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 fulfilling 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?
- (1) Installation of industrial-scale photovoltaic system on buildings' rooftop + solar streetlights; (2) Conversion of air-cooled split air-conditioners to a centralised air-cooled Variable Refrigerant Flow ("VRF") System, and chilled water air-conditioners; (3) Installation of high-quality light emitting diode ("LED") lighting and use of sensors for automatically lighting on/off triggers
- f) Has the company faced any anti-competitive practises or IP infringement controversies? **No.**

Target (Score: 100)		
Particulars	Target	Achieved
Net-zero carbon emissions (Scope 2)	2030	N/A
Reduction in energy usage from previous year's baseline up to 2030	-2%	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 - Greatech Technology (GREATEC MK, BUY, TP: MYR3.25). The peer's ESG standing has been assessed separately.

ESG score	Weights	Scores	Final Score
Quantitative	50%	29	15
Qualitative	25%	83	21
Target	25%	100	25
Total			60

As per our ESG assessment, VITRO has an established framework and internal policies to mitigate ESG risks but needs to show marked improvement in its "E"-related intensity metrics moving forward. VITRO's overall ESG score is 60, which still makes its ESG rating above average in our view (average ESG rating = 50; refer to Appendix I for our ESG Assessment Scoring).



Ramssol Group Bhd (RAMSSOL MK)

TECHNOLOGY

Quantitative parameters (Score: 31)						
	Particulars	Unit	FY21	FY22	FY23	* ITMAX (FY23)
	Scope 1 emissions	tCO2e	N/A	N/A	44.3	N/A
	Scope 2 emissions	tCO2e	N/A	N/A	69.7	N/A
	Total	tCO2e	-	-	114.1	-
F	Scope 3 emissions	tCO2e	N/A	N/A	N/A	N/A
_	Total	tCO2e	-	-	114.1	-
	Electricity consumption	MWh	N/A	N/A	92.0	1,066
	Waste management	tonnes	N/A	N/A	N/A	N/A
	Water consumption	m3	N/A	N/A	N/A	N/A
	Proportion of women in the workforce	%	N/A	N/A	51%	30%
	Proportion of women in management roles	%	17%	18%	46%	N/A
	Proportion of spending on local suppliers	%	80%	90%	99%	N/A
S	Average training hours per employee	hours	N/A	N/A	1.0	4.8
3	Labour standard non-compliance	number	0	0	0	0
	Customer complaints	number	N/A	N/A	0	0
	MD/CEO salary as % of reported net profit	%	15%	25%	13%	2%
	Board salary as % of reported net profit	%	37%	61%	24%	3%
G	Independent directors on the Board	%	50%	57%	57%	50%
	Female directors on the Board	%	17%	29 %	29 %	50%
	Cyber security breaches	number	0	0	0	0

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 Risk committee?
- Yes there is an ESG policy in place for its Malaysia operations but the scope of sustainability reporting is not complete (although it has commenced) at the regional level. The Executive Board members convene monthly to review and discuss sustainability reports and/or escalated matters from the heads of department.
- b) Is the senior management salary linked to fulfilling ESG targets? *No.*
- c) Has the company faced any anti-competitive practices, IP infringement or cyber security controversies? **No.**
- 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?
- (1) When possible, RAMSSOL shares or leases its hardware; (2) RAMSSOL sends broken or obsolete laptops to licensed e-waste recyclers; (iii) adopted hybrid working to reduce carbon footprint; (iv) plans to install solar panels at its head office
- f) Does carbon offset form part of the net zero/carbon neutrality target of the company? No.

Target (Score: 100)		
Particulars	Target	Achieved
Scope 1 emission reduction by 2030 (2023 baseline)	10%	N/A
Scope 2 emission reduction by 2030 (2023 baseline)	35%	N/A
Energy consumption reduction by 2030 (2023 baseline)	35%	N/A
Waste generated diverted from disposal by 2025	25%	N/A
Proportion of spending on local suppliers	90%	98.9%
Impact		
N/A		

* Peer Comparison

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

ESG score	Weights	Scores	Final Score
Quantitative	50%	31	16
Qualitative	25%	50	13
Target	25%	100	25
Total			53

As per our ESG assessment, Ramssol has an established framework and internal policies to mitigate ESG risks but needs to make headway in improving its "E" and "G" related metrics. Ramssol's overall ESG score is 53, which makes its ESG rating average in our view (average ESG rating = 50; refer to Appendix I for our ESG Assessment Scoring).

SAM Eng & Equipment (SEQB MK)

TECHNOLOGY

	Quantitative Parameters (Score: 22)					
	Particulars	Unit	FY22	FY23	FY24	* INRI MK (FY23)
	Scope 1 emissions	k tCO2e	N/A	N/A	0.2	0.31
	Scope 2 emissions	k tCO2e	17.4	20.4	28.5	80.29
	Total	k tCO2e	17.4	20.4	28.7	80.60
	Scope 3 emissions	k tCO2e	N/A	N/A	N/A	N/A
	Total	k tCO2e	17.4	20.4	28.7	80.60
	GHG emissions intensity	tCO2e/MYRm rev	15.2	14.1	19.2	N/A
Ε	Energy intensity	MWh/MYRm rev	30.0	27.1	34.9	N/A
	Water intensity (Malaysia)	MegaL/MYRm rev	0.12	0.12	0.14	N/A
	Electricity consumption	MWh	33,368	39,226	51,793	122,049
	Wastewater discharge (COD; Malaysia)	mg/l	N/A	N/A	N/A	28
	Waste 3R rate (Malaysia only)	%	N/A	N/A	100.0	93
	Share of renewable energy use	%	N/A	N/A	1.0%	N/A
	Cases of environmental non-compliance	number	N/A	N/A	N/A	N/A
	% of women in the workforce	%	18.0%	N/A	28.7%	65%
S	% of women in management	%	N/A	N/A	37.0%	N/A
	% of local employees	%	N/A	N/A	N/A	77%
	Lost time injury frequency (LTIF) rate	rate	N/A	1.67	0.35	0.09
	Training hours per employees	hours	N/A	N/A	60	7
	Chairman/MD salary as % of PAT	%	5.4%	5.4%	6.0%	1.6%
	Board salary as % of PAT	%	6.3%	6.2%	6.8%	3.3%
G	Independent directors on the Board	%	56%	57%	63%	33%
	Female directors on the Board	%	22%	29%	25%	17%

Qualitative Parameters (Score: 33)

- a) Is there an ESG policy in place and whether there is a standalone Sustainability Committee or is it part of Risk Committee? Over the years, SAMEE has established an ESG policy. Sustainability strategies and performance targets for SAMEE are reviewed and recommended by the Risk & Sustainability Committee.
- b) Is the senior management salary linked to fulfilling ESG targets?

 Currently, the senior management salary is not linked to fulfilling ESG targets.

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

The company currently does not follow TCFD framework for ESG reporting, but is currently working towards it. SAMEE uses the EESG framework as guidance in its sustainability journey.

- d) Does the company have a mechanism to capture Scope 3 emissions which parameters are captured? SAMEE do not have a mechanism to capture Scope 3 emissions.
- e) What are the 2-3 key carbon mitigation/water/waste management strategies adopted by the company? Since July 2023, implementation of the zirconium line in its production facility in Thailand has significantly reduced electricity consumption and reduced carbon footprint. In Feb 2024, SAMEE installed and activated its first solar panel system on-site. Wastewater generated from the chemical line is fully treated through the wastewater treatment plant and limited waste is
- f) Does carbon offset/credit form part of the carbon reduction/net zero strategy? **No.**

Target (Score: 100)					
Particulars	Target	Achieved			
Reduce GHG emissions intensity each year by 10% for the next three years	10%	N/A			
Reduce the number of man-hour-lost per employee from work hazards by 20% by 2025, and by 30% by 2030	20% (by 2025), 30% (by 2030)	79% reduction in FY24			
Impact					

N/A

Overall Score: 44

As per our ESG matrix, SAM Eng & Equipment (SEQB MK) has an overall score of 44.

ESG score	Weights	Scores	Final Score
Quantitative	50%	22	11
Qualitative	25%	33	8
Target	25%	100	25
Total			44

As per our ESG assessment, SAMEE has an established framework, internal policies, and tangible mid/long-term targets but needs to make headway in improving its quantitative "E" metrics. SAMEE's overall ESG score is 44, which makes its ESG rating slightly below average, in our view (average ESG rating = 50; refer to Appendix I for our ESG Assessment Scoring).



Telekom Malaysia (T MK)

TELECOMMUNICATIONS

	Quantitative Parameters (Score: 38)					
	Particulars	Unit	2021	2022	2023	TDC MK (FY23)
	Scope 1 emissions	k tCO2e	11.0	10.8	9.4	N/A
	Scope 2 emissions	k tCO2e	324.6	305.8	286.5	N/A
	Total	k tCO2e	335.6	316.6	295.9	N/A
	Scope 3 emissions	k tCO2e	0.0	0.0	0.0	N/A
Е	Total	k tCO2e	335.6	316.6	295.9	N/A
_	Emissions intensity (revenue)	tCO2e/MYR m	29.1	26.1	24.1	N/A
	Energy consumption intensity (revenue)	MWh/MYR m	37.1	37.7	39.2	6.8
	RE as % of usage	%	0%	6%	11%	N/A
	Water usage	megalitres	222	179	132	22
	Waste generated per employee	kg	22.3	52.0	1.7	N/A
	% of women in workforce	%	39.8%	40.0%	40.0%	40.2%
	% of women in management roles	%	31.0%	31.0%	32.0%	30.8%
S	Average training hours per employee	hours	41.0	32.0	39.0	14.6
	Lost time injury frequency (LTIF)	rate	0.17	0.17	0.08	0.81
	Data related incidents	number	23	33	70	0
	CEO salary as % of net profit	%	0.3%	0.3%	0.4%	0.6%
G	Independent directors on the Board	%	55%	50%	50%	63%
G	Female directors on the Board	%	36%	25%	33%	38%
	Customer satisfaction score	number	23	39	46	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. TM has established a sustainability committee chaired along with multiple Sustainability Working Groups.
- 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 on Climate-Related Financial Disclosures (TCFD) framework for ESG reporting?
- d) 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.
- e) What are the 2-3 key carbon mitigation/water/waste management strategies adopted by the company?

Increasing RE (solar) utilisation; implemented a rainwater harvesting system and water filtration system at 2 of its data centres; only operating high-efficiency network elements and energy-saving systems.

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

Target (Score: 100)		
Particulars	Target	Achieved
Reduce emission by 30% in 2024 (2019 baseline)	30%	22.1%
Net-zero carbon emission by 2050	2050	N/A
Impact		
NA		
Overall Score: 65		

As per our ESG matrix, TM (T MK) has an overall score of 65.

ESG score	Weights	Scores	Final Score
Quantitative	50%	38	19
Qualitative	25%	83	21
Target	25%	100	25
Total			65

As per our ESG assessment, TM has an established framework, internal policies, and tangible mid/long-term targets. TM's overall ESG score is 65, which makes its ESG rating above average in our view (average ESG rating = 50; refer to Appendix I for our ESG Assessment Scoring).



Axiata (AXIATA MK)

TELECOMMUNICATIONS

	Quantitative Parameters (Score: 31)					
	Particulars	Unit	2021	2022	2023	MAXIS MK (FY23)
	Scope 1 emissions	k tCO2e	74.0	30.8	28.8	4.3
	Scope 2 emissions	k tCO2e	1,287.8	1,008.9	1,094.6	319.8
	Total	k tCO2e	1,361.8	1,039.6	1,123.4	324.1
	Scope 3 emissions	k tCO2e	N/A	N/A	N/A	N/A
Ε	Total	k tCO2e	1,309.8	1,039.6	1,123.4	324.1
-	Carbon intensity per data usage	tCO2e/TB	0.09	0.08	0.07	N/A
	Energy usage per data usage	GJ/TB	0.52	0.44	0.38	N/A
	Solar adoption at sites (edotco)	number	2,208	2,617	2,604	N/A
	Water usage	megalitres	N/A	N/A	502	43
	% waste recycled	%	N/A	N/A	N/A	N/A
	% of women in workforce	%	32.0%	32.0%	31.0%	43.3%
	% of women in management roles	%	20.0%	24.0%	24.0%	44.4%
S	Average training hours per employee	hours	33.1	27.2	22.1	26.0
	Lost time injury frequency (LTIF)	rate	0 - 0.4	0-0.55	0.04	1.70
	Data privacy breaches	number	N/A	N/A	N/A	0
	CEO salary as % of net profit	%	0.4%	0.4%	1.1%	N/A
G	Independent directors on the Board	%	60%	58%	55%	50%
_G	Female directors on the Board	%	20%	25%	27%	20%
	Number of top-ranked op-cos by NPS	Number	4	4	3	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 Board Sustainability Committee which is supported by a Sustainability Steering Committee.

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

Yes. Sustainability related KPIs are embedded in Axiata's and OpCos' Senior Leadership Teams' (SLTs) annual remuneration-linked KPIs.

- c) Does the company follow the Task Force on Climate-Related Financial Disclosures (TCFD) framework for ESG reporting? Yes.
- d) Does the company have a mechanism to capture Scope 3 emissions which parameters are captured?

No. Axiata is presently refining its Scope 3 inventory.

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

Deployed AI technology at Smart's radio network to lower energy consumption; implemented solar power project and battery bank upgrades at Dialog.

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

Target (Score: 100)				
Particulars	Target	Achieved		
Reduce absolute Scope 1, 2 and 3 emissions in 2030 (from 2022 baseline)	2030	N/A		
Net-zero carbon emissions by 2050	2050	N/A		
30% female directors at the Board by 2025	30%	27%		
30% women in Holding Company senior leadership team by 2025	30%	27%		
Impact				
NA				
Overall Score: 61				
As per our ESG matrix, Axiata (AXIATA MK) has an overall score of 61.				

ESG score	Weights	Scores	Final Score
Quantitative	50%	31	16
Qualitative	25%	83	21
Target	25%	100	25
Total			61

As per our ESG assessment, Axiata has an established framework, internal policies, and tangible mid/long-term targets. Axiata'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).



CelcomDigi (CDB MK)

TELECOMMUNICATIONS

	Quantitative Parameters (Score: 13)					
	Particulars	Unit	2021	2022	2023	MAXIS MK (FY23)
	Scope 1 emissions	k tCO2e	10.8	16.0	53.7	4.3
	Scope 2 emissions	k tCO2e	206.3	262.9	467.8	319.8
	Total	k tCO2e	217.1	278.9	521.5	324.1
	Scope 3 emissions	k tCO2e	0.3	0.8	0.3	N/A
Е	Total	k tCO2e	217.4	279.8	521.8	324.1
_	Carbon intensity per data usage	tCO2e/TB	0.10	0.11	0.09	N/A
	Energy usage per customer	kWh/cust	33.3	36.8	44.5	N/A
	RE as a % of usage	%	0.00%	0.02%	0.37%	N/A
	Water usage	megalitres	68	103	151	43
	% waste recycled	%	53%	76%	8%	N/A
	% of women in workforce	%	50.0%	47.9%	48.0%	43.3%
	% of women in management roles	%	45.0%	39.0%	41.0%	44.4%
S	Average training hours per employee	hours	52.6	50.0	14.1	26.0
	Lost time injury frequency (LTIF)	rate	0.00	0.00	0.14	1.70
	Data privacy breaches	number	0	0	0	0
	Key management salary as % of net profit	%	1.5%	2.6%	1.5%	2.8%
G	Independent directors on the Board	%	50%	44%	40%	50%
G	Female directors on the Board	%	50%	33%	30%	20%
	Customer satisfaction score	%	N/A	66%	70%	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 a risk committee? Yes. The Board Governance and Risk Management Committee overseas ESG matters.

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

Yes

- c) Does the company follow the Task Force on Climate-Related Financial Disclosures (TCFD) framework for ESG reporting? Yes.
- d) Does the company have a mechanism to capture Scope 3 emissions which parameters are captured? Yes Air and land travel for business.
- e) What are the 2-3 key carbon mitigation/water/waste management strategies adopted by the company?

Optimise energy use of networks by adopting energy efficient hardware and best practices, and by retiring legacy networks; installing 74 sites with hybrid solar technology and 33 sites with hybrid battery gensets.

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

Target (Score: 1	100)	
Particulars	Target	Achieved
Carbon neutral by 2030	2030	N/A
Net-zero carbon emissions by 2050	2050	N/A
Impact		
NA		
Overall Score:	57	
As per our ESG matrix, CelcomDigi (CDB MK) has an overall score of 57.		

ESG score	Weights	Scores	Final Score
Quantitative	50%	13	7
Qualitative	25%	100	25
Target	25%	100	25
Total			57

As per our ESG assessment, CelcomDigi has an established framework, internal policies, and tangible mid/long-term targets. CelcomDigi's overall ESG score is **57**, which makes its ESG rating **above average** in our view (average ESG rating = 50; refer to Appendix I for our ESG Assessment Scoring).



Maxis (MAXIS MK)

TELECOMMUNICATIONS

	Quantitative Parameters (Score: 38)					
	Particulars	Unit	2021	2022	2023	CDB MK (FY23)
	Scope 1 emissions	k tCO2e	4.7	4.7	4.3	53.7
	Scope 2 emissions	k tCO2e	273.4	286.2	319.8	467.8
	Total	k tCO2e	278.1	290.9	324.1	521.5
	Scope 3 emissions	k tCO2e	N/A	N/A	N/A	0.3
Е	Total	k tCO2e	278.1	290.9	324.1	521.8
-	Scope 2 intensity per base station	tCO2e/site	24.2	27.1	26.6	N/A
	Electricity consumption per site	MWh/site	35.8	39.9	39.5	N/A
	RE as % of usage	%	N/A	N/A	N/A	0.37%
	Water usage	megalitres	N/A	N/A	43	151
	% office waste recycled	%	84%	89%	91%	N/A
	% of women in workforce	%	44.1%	43.6%	43.3%	48.0%
	% of women in management roles	%	30.0%	33.3%	44.4%	41.0%
S	Average training hours per employee	hours	34.7	32.1	26.0	14.1
	Lost time injury frequency (LTIF)	rate	0.27	0.18	1.70	0.14
	Data related incidents	number	N/A	N/A	0	0
	Key management salary as % of net profit	%	3.2%	4.7%	2.8%	1.5%
G	Independent directors on the Board	%	33%	40%	50%	40%
G	Female directors on the Board	%	11%	20%	20%	30%
	Customer satisfaction (NPS)	number	63	66	68	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. A Sustainability Steering Committee comprising Maxis' management team and members of key business units manages sustainability matters.

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

Yes. Sustainability KPIs have a bearing on the performance evaluations of senior management

- c) Does the company follow the Task Force on Climate-Related Financial 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?

Transitioned part of vehicle fleet to electric vehicles; implemented complete off-grid solar systems in rural sites; optimised cooling system by implementing hot/cold aisle containment design inside Network and ISD Data Centre.

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

Target (Score: 0)				
Particulars Tar	et	Achieved		
Enhancing ESG strategy and disclosure (including publishing targets) Unspecif	ed	N/A		
30% female directors by 2025	0%	20%		
Impact				
NA				
Overall Score: 40				
As per our ESG matrix, Maxis (MAXIS MK) has an overall score of 40.				

ESG score	Weights	Scores	Final Score
Quantitative	50%	38	19
Qualitative	25%	83	21
Target	25%	0	0
Total			40

As per our ESG assessment, Maxis has an established framework and internal policies, but has yet to disclose mid/long-term targets. Maxis' overall ESG score is 40, 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 (TDC MK)

TELECOMMUNICATIONS

	Quantitative Parameters (Score: 38)					
	Particulars	Unit	2021	2022	2023	T MK (FY23)
	Scope 1 emissions	k tCO2e	N/A	N/A	N/A	9.4
	Scope 2 emissions	k tCO2e	N/A	N/A	N/A	286.5
	Total	k tCO2e	N/A	N/A	N/A	295.9
	Scope 3 emissions	k tCO2e	N/A	N/A	N/A	0.0
Ε	Total	k tCO2e	N/A	N/A	N/A	295.9
-	Emissions intensity (revenue)	tCO2e/MYR m	N/A	N/A	N/A	24.1
	Energy consumption intensity (revenue)	MWh/MYR m	7.0	6.7	6.8	39.2
	RE as % of usage	%	N/A	N/A	N/A	11%
	Water usage	megalitres	18	22	22	132
	Waste recycled	kg	N/A	N/A	N/A	N/A
	% of women in workforce	%	41.3%	40.6%	40.2%	40.0%
	% of women in management roles	%	30.8%	30.8%	30.8%	32.0%
S	Average training hours per employee	hours	8.0	12.9	14.6	39.0
	Lost time injury frequency (LTIF)	rate	0.40	0.00	0.81	0.08
	Data related breach	number	0	0	0	70
	CEO salary as % of net profit	%	0.4%	0.5%	0.6%	0.4%
G	Independent directors on the Board	%	50%	50%	63%	50%
G	Female directors on the Board	%	30%	40%	38%	33%
	Customer satisfaction	number	83	88	90	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. Sustainability matters are overseen by TIME's Sustainability Steering Committee chaired by an Executive Director.

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 on Climate-Related Financial Disclosures (TCFD) framework for ESG reporting?
- d) Does the company have a mechanism to capture Scope 3 emissions which parameters are captured?
- e) What are the 2-3 key carbon mitigation/water/waste management strategies adopted by the company? Adopting LED lighting, utilising low wattage bulbs, acquiring smart lights and motion sensors.
- f) Does carbon offset form part of the net zero/carbon neutrality target of the company? *No mention*.

Target (Score: 0)					
Particulars	Target	Achieved			
Further incorporation of ESG elements into business strategy	Unspecified	N/A			
Enhance integrated reporting in 3-5 years	2026-2028	N/A			
Impact					
NA					
Overall Score: 27					
As per our ESG matrix, TIME (TDC MK) has an overall score of 27					

ESG score	Weights	Scores	Final Score
Quantitative	50%	38	19
Qualitative	25%	33	8
Target	25%	0	0
Total			27

As per our ESG assessment, TIME lacks disclosure in key ESG metrics and mid/long-term targets. TIME's overall ESG score is **27**, which makes its ESG rating **below average** in our view (average ESG rating = 50; refer to Appendix I for our ESG Assessment Scoring).



Westports Holdings (WPRTS MK)

TRANSPORT & LOGISTICS

	Quanti	itative Parameters ((Score: 61)			
	Particulars	Unit	FY21	FY22	FY23	PSA SG (FY23)
	Scope 1 emissions	k tCO2e	135.8	133.2	134.2	473.0
	Scope 2 emissions	k tCO2e	97.3	49.7	45.8	275.0
	Total	k tCO2e	213.7	182.8	180.0	748.0
	Scope 3 emissions	k tCO2e	9.2	108.7	99.0	1562.0
	Total	k tCO2e	222.9	291.5	279.0	2310.0
	Total emissions intensity	kgCO2e/TEU	22.4	18.2	16.6	9.7
E	Total energy consumption	k TJ	2.5	2.2	2.2	13.7
-	Electricity intensity	kWh/TEU	12.34	6.03	5.03	12.83
	Total scheduled waste recycled	%	3.0%	3.4%	0.5%	0.8%
	Total water withdrawal	ML	1,535	1,500	1,516	2,780
	SOx	Tonnes	274	243	245	N/A
	NOx	Tonnes	4,170	3,701	3,729	N/A
	VOC	Tonnes	381	348	352	N/A
	Cases of environmental non-compliance	number	0	0	0	0
	% of women in workforce	%	2.4%	2.9%	5.0%	N/A
	% of women in management roles	%	N/A	N/A	13.6%	N/A
	Average training hours	Hrs/employee	95	72	24	32
S	Lost-time injury frequency rate/m hrs worked	Rate	0.37	0.16	2.21	2.96
3	Spending on local supliers	%	96.6%	82.0%	91.9%	N/A
	Total cybersecurity incidents	Number	1	0	0	0
	Employee turnover rate	%	17.4%	19.6%	10.7%	6%
	Board of Directors' salary as % of reported NP	%	1.3%	1.5%	1.3%	0.2%
	EC salary to avg staff cost	Х	82	78	84	N/A
G	Independent directors (tenure <10 years)	%	46.2%	54.5%	60.0%	N/A
	% of women on the Board	%	30.8%	45.5%	50.0%	27.0%
	Total corruption and bribery cases	number	0	0	0	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 Risk Committee?
- Yes Westports has an established sustainability policy and a Sustainability Committee to help the Board review its ESG policies.
- b) Is the senior management salary linked to fulfiling ESG targets?
- Yes starting in 2023, Executive compensation is directly linked to sustainability targets.
- c) Does the company follow the Task Force on Climate-Related Financial Disclosures (TCFD) framework for ESG reporting?
- d) Does the company have an internal carbon pricing policy in place? Yes.
- e) Does the company have a mechanism to capture Scope 3 emissions which parameters are captured?
- Yes Westports calculates its Scope 3 emissions using UK Government GHG conversion factors for fuel and energy activities, WRI GHG Protocol tools for business travel, the GHG Protocol Initiative's tool for employee commuting, and the Energy Commission Grid Emission Factor for downstream leased assets and investments.
- f) What are the 2-3 key carbon mitigation/water/waste management strategies adopted by the company?

Westports focuses on electrifying its terminal equipment, expanding renewable energy use, conserving water through rainwater harvesting, and maintaining stringent waste and wastewater management practices to meet regulatory standards.

Target (Score: 57)						
Particulars	Target	Achieved				
Water consumption of < 60,000 m3/mth	60,000 m3/mth	126,296 m3/mth				
All vendors commit to sustainability by 2030	2030	N/A				
Net zero by 2050	2050	N/A				
Zero paper use by 2030	2030	N/A				
To reduce accidents and incidents at operations by 30% in 2024	-30%	N/A				
Women in workforce target of 30%	30%	5%				
Employees' satisfaction target of 80%	80%	79%				
Impact						
N/A						
Overall score: 70						
As per our ESG matrix, Westports has an overall score of 70.						

ESG score	Weights	Scores	Final Score
Quantitative	50%	61	31
Qualitative	25%	100	25
Target	25%	57	14
Total			70

As per our ESG assessment, Westports has an established framework, internal policies, and tangible targets. We commend its strong commitment to ESG governance. Westports latest ESG score of **70** is **above its industry's average** (FY22: 62), in our view (average ESG rating = 50; refer to App I for our ESG Assessment Scoring).

Maybank

MISC Bhd (MISC MK)

TRANSPORT & LOGISTICS

	Quanti	tative Parameters	(Score: 33)			
	Particulars	Unit	FY21	FY22	FY23	K-Line (FY23)
	Scope 1 emissions	k tCO2e	4,135.6	4,184.2	4,106.2	6,551.0
	Scope 2 emissions	k tCO2e	37.9	40.6	39.9	17.6
	Total	k tCO2e	4,173.5	4,224.8	4,146.1	6,568.6
	Scope 3 emissions	k tCO2e	1,344.2	2,846.8	2,953.0	4,027.5
	Total	k tCO2e	5,517.7	7,071.6	7,099.1	10,596.1
E	Fleets' carbon intensity efficiency ratio (per unit of transport work)	gCO2e/ton-nm	6.5	6.3	5.8	N/A
_	Energy consumption	GWh	16,842	17,110	16,635	890,815
	Fleet garbage generation per vessel	m3	65	67	70	N/A
	Total freshwater withdrawal	m3	658,153	799,532	883,033	N/A
	Total spills	number	3	4	2	0
	Cases of environmental non-compliance	number	1	2	0	N/A
	SOx emissions	tonnes	3,213	3,679	3,932	29,963
	NOx emissions	tonnes	42,552	43,260	43,663	117,089
	% of women in workforce	%	13%	14%	15%	29.0%
	% of women in management roles	%	22.9%	24.0%	24.7%	6.8%
S	Average training hours per employee	hours	N/A	24	30	160
3	Lost-time injury frequency	number	0.15	0.08	0.09	0.57
	Penalties concerning health and safety impacts	number	2	2	0	N/A
	Fatalities/major security incidents	number	0	0	3	0
	CEO's remuneration % of net profit	%	0.18%	0.17%	0.15%	N/A
	Total directors' remuneration net profit	%	0.33%	0.33%	0.28%	N/A
G	Independent directors (tenure <10yrs)	%	66.7%	66.7%	62.5%	50.0%
	% of women on the board	%	33.3%	41.7%	50.0%	12.5%
	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?
- MISC has a Sustainability Framework in place. The ultimate oversight of MISC's ESG/Sustainability performance is the Board.
- 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?
- Yes, MISC publishes a standalone TCFD report as well.
- 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, business travel, employee commute, purchased goods & services, fuel & energy related activities 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, where the VOCs captured are reused as supplementary fuel this, along with other efficencies, help save up to 4,000 tonnes of fuel/year per vessel, 2) installed a flare gas recovery system (FGRS) on FPSO Kikeh that recovers gas and uses the recovered gas elsewhere in the facility which reduce GHG emissions, 3) installation of a combined-cycle power system at its offshore assets which reuses waste heat from the turbine exhaust to generate steam, thus reducing emissions vs. an 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; the 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	2050	N/A
To reduce GHG intensity by 2030 for shipping operations (base year 2008)	-50%	-15%
Lost Time Injury Frequency (LTIF) <0.19	<0.19	0.09
Total Recordable Case Frequency (TRCF) < 0.59	<0.59	0.31
27% reduction in plastic waste generation per vessel by 2025	-27%	N/A
Increase the annual 3R rate of non-hazardous waste generated to 70% by 2025	70%	3%
Deploy zero emission vessels by 2030	2030	N/A
Impact		
NA		
Overall Score: 67		
As per our ESG matrix, MISC (MISC MK) has an overall score of 67.		

ESG score	Weights	Scores	Final Score
Quantitative	50%	33	17
Qualitative	25%	100	25
Target	25%	100	25
Total			67

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 67, which makes a very strong ESG rating and is well above the industry's average, in our view (average ESG rating = 50; refer to Appendix I for our ESG Assessment Scoring).



Capital A (CAPITALA MK)

TRANSPORT & LOGISTICS

	Quantitative Parameters (Score: 19)					
	Particulars	Unit	FY21	FY22	FY23	LUV US (FY12/23)
	Scope 1 emissions	tCO2e	391,325	1,917,390	6,036,693	20,670,103
	Scope 2 emissions	tCO2e	3,496	4,459	9,972	35,822
	Total	tCO2e	394,821	1,921,849	6,046,664	20,705,925
F	Scope 3 emissions	tCO2e	N/A	410,251	1,179,004	4,167,834
_	Total	tCO2e	394,821	2,332,100	7,225,668	24,873,759
	Scope 1 intensity	gCO2/ASK	70	66	64	75
	Water consumption	m3	45,320	83,289	102,067	324,788
	Waste generated	MT	204	569	1,003	8,914
	% of women in workforce	%	35%	34%	34%	44%
	% of women in managerial roles	%	18%	24%	22%	24%
	Lost time incident rate	rate/1m hrs	2	6	7	N/A
S	On-time performance	%	80%	77%	77%	77%
3	Net promoter score - airlines	score	60	36	52	55
	Customer satisfaction score - airlines	score	67%	47%	67%	N/A
	Employee attrition rate	%	15%	12%	17%	9 %
	Employee training per employee	hours	N/A	12	7	54
	Board salary as % of revenue	%	2.0%	0.3%	0.2%	0.0%
G	Independent directors on the Board (tenure <10 years)	%	50%	50%	50%®	86%
	Female directors on the Board	%	0%	17%	17%#	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 Risk Committee?
- Yes. CAPITALA has an ESG policy which detailed its Sustainability Policy and Sustainability Redbook. Sustainability Working Groups and the Group Sustainability Department report to the Chief Sustainability Officer who, in turn, reports to the Risk Management and Sustainability Committee.
- b) Is the senior management salary linked to fulfilling ESG targets?
- c) Does the company follow TCFD framework for ESG reporting or participate in the United Nations Global Compact? Yes. CAPITALA follows the TCFD framework for ESG reporting.
- e) Does the company have a mechanism to capture Scope 3 emissions which parameters are captured?

 Yes. Captures emissions from Google cloud subscription, upstream emissions of purchased jet fuel, business travel, employee commuting, use of sold products and third-party delivery service providers.
- f) What are the 2-3 key carbon mitigation/water/waste management strategies adopted by the company?

 Gradually migrating fleet from the A320 to more fuel efficient A321neo, flying aircraft more fuel efficiently, exploring the utilisation of Sustainable Aviation Fuels and carbon credits, and migrated from printing trip files to storing them digitally.
- g) Does carbon offset form part of the net zero/carbon neutrality target of the company? Yes.

Target (Score: 100)		
Particulars	Target	Achieved
Carbon net zero by 2050	0%	N/A
Cap emissions at 85% of 2019 levels by 2026	85%	N/A
≥15% of power consumption from renewable sources by 2026	15%	0%
All new buildings Green Certified and utilise ≥30% renewable energy by 2026	30%	N/A
Achieve full paperless operations by 2026	100%	N/A
Convert all on-site servers to cloud-based servers by 2026	100%	100%
Reduce waste fo landfill by 10% p.a. by 2026	10%	N/A
Eliminate single use plastics by 2026	0%	N/A
Cap food waste at 15% by 2026	15%	N/A
≥30% of total procurement from ESG-compliant suppliers by 2026	30%	N/A
≥10% of materials to be biodegradable or recycled by 2026	10%	N/A
≥30% women representation across all employee levels by 2026	30%	34%
≥30% women representation on the Board Of Directors by 2026	30%	17%
≥10% women pilots and engineers by 2026	10%	7%
≥30% women in tech by 2026	30%	24%
Invest ≥2% of total manpower budget into training & development by 2026	2%	N/A
Achieve 1.5 human capital return on investment ratio by 2026	1.5	N/A
Positively impact 100m people by 2026	100m	N/A
Generate MYR12m revenue p.a. from social and MSMEs by 2026	MYR12m	N/A
Impact		
NA		
Overall Score: 59		
As per our ESG matrix, Capital A (CAPITALA MK) has an overall score of 59.		

ESG score	Weights	Scores	Final Score
Quantitative	50%	19	9
Qualitative	25%	100	25
Target	25%	100	25
Total			59

As per our ESG assessment, CAPITALA has an established framework, internal policies, and tangible mid/long-term targets. CAPITALA's overall ESG score is **59**, which makes its ESG rating **above average** in our view (average ESG rating = 50; refer to Appendix I for our ESG Assessment Scoring).

^{@ - 40%} currently

^{# - 0%} currently



AirAsia X Bhd (AAX MK)

TRANSPORT & LOGISTICS

	Quantitative Parameters (Score: 31)							
	Particulars	Unit	2021	2022	2023	LUV US (FY12/23)		
	Scope 1 emissions	tCO2e	128,276	186,924	960,280	20,670,103		
	Scope 2 emissions	tCO2e	78	99	206	35,822		
	Total	tCO2e	128,354	187,023	960,486	20,705,925		
Е	Scope 3 emissions	tCO2e	N/A	N/A	200,795	4,167,834		
_	Total	tCO2e	128,354	187,023	1,161,281	24,873,759		
	Scope 1 intensity	gCO ₂ /ASK	6,735	90	61	75		
	Water consumption	m3	896	1,877	1,304	324,788		
	Waste generated	MT	N/A	N/A	27	8,914		
	% of women in workforce	%	N/A	44%	48%	44%		
	% of women in managerial roles	%	N/A	N/A	22%	24%		
	Lost time incident rate	rate/1m hrs	-	4.0	0.2	N/A		
S	On-time performance	%	N/A	57%	77%	77%		
3	Net promoter score	score	N/A	37	32	55		
	Customer satisfaction score	score	N/A	43%	70%	N/A		
	Employee attrition rate	%	N/A	N/A	3%	9%		
	Employee training per employee	hours	N/A	N/A	14	54		
	Board salary as % of revenue	%	0.1%	0.1%	0.1%	0.0%		
G	Independent directors on the Board	%	43%	67%	67%	86%		
	Female directors on the Board	%	14%	17%	17%	20%		

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. There is a Sustainability Working Group that reports to the Sustainability Steering Committee that reports to the Risk Management Committee that reports to the Board of Directors.
- b) Is the senior management salary linked to fulfilling ESG targets?
- c) Does the company follow the Task Force on Climate-Related Financial Disclosures (TCFD) framework for ESG reporting? Yes.
- Yes.
 e) Does the company have a mechanism to capture Scope 3 emissions which parameters are captured?
- Yes. Captures category 3 fuel and energy related activities, category 6 business travel, and category 7 employee commuting.
- f) What are the 2-3 key carbon mitigation/water/waste management strategies adopted by the company?

 Digitised training and trip files to save on paper consumption, maintain a Carbon Dashboard to monitor fuel burn, exploring utilising sustainable aviation fuels, employing one engine taxi arrival and departure, and optimising flight paths.
- g) Does carbon offset form part of the net zero/carbon neutrality target of the company? Yes. Exploring CORSIA-certified carbon projects in ASEAN for carbon offsetting

Target (Score: 100)		
Particulars	Target	Achieved
Food waste limited to 30% of total consumption onboard	30%	15%
Net zero emissions by 2050	-	N/A
Impact		
NA		
Overall Score: 57		
As per our ESG matrix, AirAsia X (AAX MK) has an overall score of 57.		

ESG score	Weights	Scores	Final Score
Quantitative	50%	31	16
Qualitative	25%	67	17
Target	25%	100	25
Total			57

As per our ESG assessment, AAX has an established framework, internal policies, and tangible mid/long-term targets. AAX's overall ESG score is **57**, which makes its ESG rating slightly **above average**, in our view (average ESG rating = 50; refer to Appendix I for our ESG Assessment Scoring).



Swift Haulage (SWIFT MK)

TRANSPORT & LOGISTICS

	Quantitative parameters (Score: 35)					
						WPRTS MK
	Particulars	Unit	FY21	FY22	FY23	(FY23)
	Scope 1 emissions	tCO2e	113,983	131,247	135,054	134,243
	Scope 2 emissions	tCO2e	2,665	3,145	2,747	45,800
	Total	tCO2e	116,648	134,392	137,801	180,043
	Scope 3 emissions	tCO2e	N/A	6,071	6,435	98,966
	Total	tCO2e	116,648	140,463	144,236	279,009
Ε	Scope 1 & 2 emissions intensity (by rev)	tCO2e/MYR'm	198.3	208.8	205.21	83.7
	Energy consumption intensity (by rev)	MWh/MYR'm	7.77	7.44	7.11	28.1
	Water consumption intensity	m3/MYR'm	312.7	278.1	221.9	704.3
	Waste diverted away form disposal	%	2.5%	37.7%	51.2%	0.5%
	Solar energy as % of energy consumption	%	N/A	N/A	N/A	0.0%
	Cases of environmental non-compliance	number	0	0	0	0
	% of women in workforce (ex-driver)	%	22.0%	21.0%	22.0%	5.0%
	% of women in management roles	%	40.0%	40.0%	40.0%	14.3%
	Average training hours	Hrs/employee	2.4	4.7	6.5	24.0
S	Lost-time injury frequency rate	Rate	1.89	1.40	2.00	1.29
3	Spending on local supliers	%	100%	100%	100%	92%
	Total cybersecurity incidents	Number	N/A	N/A	0	0
	Employee turnover rate	%	20.4%	21.8%	17.7%	10.7%
	Board of Directors' salary as % of reported NP	%	N/A	0.7%	5.1%	1.3%
	EC/CEO salary to avg staff cost	Х	N/A	34	33	84
G	Independent directors (tenure <10 years)	%	57.1%	57.1%	50.0%	60.0%
	% of women on the Board	%	28.6%	28.6%	37.5%	0.5
	Total corruption and bribery cases	number	0	0	0	0

Qualitative Paramaters (Score: 50)

- 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 managed through dedicated sustainability committees (ie. Sustainability Steering Committee and Sustainability Working Committee) with oversight by the Board.
- b) Is the senior management salary linked to fulfiling ESG targets? No.
- c) Does the company follow the Task Force on Climate-Related Financial Disclosures (TCFD) framework for ESG reporting? *No.*
- d) Does the company has a mechanism to capture Scope 3 emissions which parameters are captured?
- Yes, the company has a mechanism to capture Scope 3 emissions and the parameters captured are waste, business travel and employee commuting.
- e) What are the 2-3 key carbon mitigation/water/waste management strategies adopted by the company?
- Key initiatives include: (i) carbon reduction through eco-driving, no-idling, and route optimization, alongside transitioning to electric vehicles with a Green Logistics Division; (ii) energy efficiency is supported by solar panel installations and workplace power-saving measures; (iii) waste is managed through 3R initiatives and regulatory compliance, while water conservation efforts include leak prevention and smart fixtures.
- f) Does carbon offset form part of the net zero/carbon neutrality target of the company? No.

Target (Score: 10	0)	
Particulars	Target	Achieved
5% reduction in Scope 1 emissions by 2030	-5%	N/A
10% reduction in Scope 2 emissions by 2030	-10%	N/A
Procure only electric/RE prime movers and trucks from 2030 onwards	2030	N/A
Impact		
N/A		
Overall score: 5	5	
As per our ESG matrix, Westports has an overall score of 55.		

ESG score	Weights	Scores	Final Score
Quantitative	50%	35	18
Qualitative	25%	50	13
Target	25%	100	25
Total			55

As per our ESG assessment, Swift Haulage has made notable improvements in the "E" pillar, but there is room for growth in the "S" pillar, particularly in areas such as female workforce participation, LTIR, and employee turnover, which pose crucial risks to the business (e.g., service quality, driver safety, etc.). Swift Haulage's ESG score of 55 is within its industry's average, in our view (average ESG rating = 50; refer to App I for our ESG Assessment Scoring).

Ranhill (RAHH MK) UTILITIES

		Quantitative Paramete	rs (Score: 28	3)		
	Particulars	Unit	2021	2022	2023	MFCB MK (FY23)
	Scope 1 emissions	k tCO2e	349.2	1,309.3	1,357.6	486.4
	Scope 2 emissions	k tCO2e	187.8	291.6	292.9	51.7
	Total	k tCO2e	537.0	1,600.8	1,650.5	538.1
	Scope 3 emissions	k tCO2e	15.9	331.2	453.3	25.3
	Total	k tCO2e	553.0	1,932.0	2,103.8	563.4
F	GHG intensity (Scope 1 and 2)	tCO2e/MYR m rev	350.8	927.3	723.6	408.4
ļ -	Energy consumption intensity	TJ/MYR m rev	7.8	14.2	11.1	1.5
	RE usage (Ranhill SAJ)	MWh	113.2	134.6	293.6	100%
	Non-revenue water (NRW) level	%	25.1%	26.3%	25.0%	178
	% waste recycled	%	N/A	N/A	47.7%	75%
	NOx emissions	mg/m3	31.9	19.4	15.0	118
	SOx emissions	mg/m3	N/A	N/A	N/A	4
	% of women in workforce	%	20.3%	21.3%	22.2%	23.0%
	% of women in management roles	%	29.4%	27.2%	26.1%	32.3%
S	Average training hours per employee	hours	17.7	32.3	39.4	11.2
	Lost time injury frequency (LTIF)	rate	0.5	0.3	0.2	4.9
	Community contribution	MYR m	0.9	2.3	6.9	1.8
	MD/CEO salary as % of net profit	%	22%	8%	14%	2.0%
G	Board salary as % of net profit	%	20%	9 %	24%	0.7%
	Independent directors on the Board	%	67%	56%	50%	50%
	Female directors on the Board	%	33%	33%	40%	25%

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. Ranhill has an ESG policy in place, overseen by a Sustainable Working Committee.
- b) Is the senior management salary linked to fulfilling ESG targets?

Yes

- c) Does the company follow the Task Force on Climate-Related Financial Disclosures (TCFD) framework for ESG reporting?
- d) Does the company have a mechanism to capture Scope 3 emissions which parameters are captured?
- Yes. Purchase of goods & services, capital goods, fuel and energy services, upstream transportation and distribution, waste, business travel and employee commute.
- e) What are the 2-3 key carbon mitigation/water/waste management strategies adopted by the company?

Ranhill aims to raise its RE capacity, and intends to power its water treatment operations with solar energy.

f) 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 emissions by 90% by 2050	90%	N/A
Net-zero carbon emissions by 2050	2050	N/A
25% reduction in emissions per electricity generated in Energy business	25%	N/A
30% reduction in emissions in Water business	30%	N/A
24.5% NRW level target for Johor by 2025	24.5%	25.0%
Impact		
NA NA		
Overall Score: 64		
As per our ESG matrix, Ranhill (RAHH MK) has an overall score of 64.		

Weights	Scores	Final Score
50%	28	14
25%	100	25
25%	100	25
		64
	50% 25%	50% 28 25% 100

As per our ESG assessment, Ranhill has an established framework, internal policies, and tangible mid/long-term targets. Ranhill's overall ESG score is **64**, 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 (TNB MK)

UTILITIES

	Quantitative Parameters (Score: 28)					
	Particulars	Unit	2021	2022	2023	MLK MK (FY23)
	Scope 1 emissions	m tCO2e	39.8	38.6	38.9	16.5
	Scope 2 emissions	m tCO2e	0.3	0.3	0.4	0.1
	Total	m tCO2e	40.1	38.9	39.3	16.6
	Scope 3 emissions	m tCO2e	N/A	N/A	0.1	N/A
	Total	m tCO2e	40.1	38.9	39.4	16.6
Ε	GHG intensity (Scope 1)	tCO2e/MWh	0.54	0.55	0.55	0.77
-	Energy intensity	GJ/MWh	N/A	N/A	6.72	N/A
	% RE capacity	%	19%	22%	24%	N/A
	Water usage	megalitres	8,431	10,531	10,096	2,532
	% waste recycled	%	N/A	N/A	47%	0.5%
	NOx emissions	mg/m3	N/A	N/A	N/A	94.9
	SOx emissions	mg/m3	N/A	N/A	N/A	94.8
	% of women in workforce	%	22.1%	21.4%	20.9%	16.4%
	% of women in management roles	%	23.1%	24.3%	26.2%	21.4%
S	Average training hours per employee	hours	7.0	34.0	47.0	7.6
	Lost time injury frequency (LTIF)	rate	1.03	0.82	0.74	0.73
	Community contribution	MYR m	40	12	99	21.6
	MD/CEO salary as % of net profit	%	0.1%	0.1%	0.1%	loss
G	Board salary as % of net profit	%	0.1%	0.1%	0.1%	loss
G	Independent directors on the Board	%	67%	55%	50%	56%
	Female directors on the Board	%	33%	55%	42%	11%

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. Tenaga 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. Sustainability-linked KPIs are embedded within senior management's performance evaluation scorecard.
- c) Does the company follow the Task Force on Climate-Related Financial Disclosures (TCFD) framework for ESG reporting?
- d) Does the company have a mechanism to capture Scope 3 emissions which parameters are captured?
- Yes. Business travel and employee commute.
- e) 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.
- f) 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	3,983		
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%	42%		
Reduce coal capacity by 100% in 2050	100%	42%		
Zero fatalities and LTIP <1.0 in 2050	<1.0	0.7		
Impact				
NA				
Overall Score: 64				
As per our ESG matrix, Tenaga (TNB MK) has an overall score of 64.				

ESG score	Weights	Scores	Final Score
Quantitative	50%	28	14
Qualitative	25%	100	25
Target	25%	100	25
Total			64

As per our ESG assessment, Tenaga has an established framework, internal policies, and tangible mid/long-term targets. Tenaga's overall ESG score is **64**, which makes its ESG rating **above average** in our view (average ESG rating = 50; refer to Appendix I for our ESG Assessment Scoring).



Mega First Corp. (MFCB MK)

UTILITIES

	Quantitative Parameters (Score: 28)					
	Particulars	Unit	2021	2022	2023	RAHH MK (FY23)
	Scope 1 emissions	k tCO2e	433.6	488.7	486.4	1,357.6
	Scope 2 emissions	k tCO2e	24.0	32.7	51.7	292.9
	Total	k tCO2e	457.6	521.4	538.1	1,650.5
	Scope 3 emissions	k tCO2e	21.5	27.0	25.3	453.3
	Total	k tCO2e	479.1	548.4	563.4	2,103.8
Ε	GHG intensity (Scope 1 and 2)	tCO2e/MYR m rev	500.3	389.2	408.4	723.6
	Energy intensity	TJ/MYR m rev	0.4	0.2	1.5	11.1
	% RE generation	%	100%	100%	100%	N/A
	Water consumption	megalitres	133	184	178	N/A
	% waste recycled	%	N/A	92%	75%	47.7%
	NOx emissions	mg/m3	N/A	125	118	15.0
	SOx emissions	mg/m3	N/A	35	4	N/A
	% of women in workforce	%	21.8%	23.2%	23.0%	22.2%
	% of women in management roles	%	30.7%	30.8%	32.3%	26.1%
S	Average training hours per employee	hours	3.6	7.6	11.2	39.4
	Lost time injury frequency (LTIF)	rate	6.2	3.8	4.9	0.2
	Community contribution	MYR m	2.1	1.3	1.8	6.9
	MD/CEO salary as % of net profit	%	1.6%	2.0%	2.0%	14%
G	Board salary as % of net profit	%	0.4%	0.7%	0.7%	24%
G	Independent directors on the Board	%	55%	58%	50%	50%
	Female directors on the Board	%	18%	17%	25%	40%

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 an ESG policy in place, overseen by a Sustainability Executive Committee led by its Executive Directors.
- b) Is the senior management salary linked to fulfilling ESG targets?

Yes.

- c) Does the company follow the Task Force on Climate-Related Financial Disclosures (TCFD) framework for ESG reporting? *No.*
- d) Does the company have a mechanism to capture Scope 3 emissions which parameters are captured?
- Yes. Transportation and distribution, waste generation, business travel and commuting.
- e) What are the 2-3 key carbon mitigation/water/waste management strategies adopted by the company?
- Introduced solar rooftop across operations; Hexachase transitioned to EV forklifts and reach trucks; RCI upgraded to premium efficient IE3 electric motors.
- f) 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		
Achieve carbon neutrality by 2035	2035	N/A		
Reduce GHG emissions in the supply chain by 50% by 2035	50%	N/A		
Reduce waste to landfill by 50% by 2030	50%	N/A		
Impact				
NA				
Overall Score: 60				
As per our ESG matrix, Mega First (MFCB MK) has an overall score of 60.				

ESG score	Weights	Scores	Final Score
Quantitative	50%	28	14
Qualitative	25%	83	21
Target	25%	100	25
Total			60

As per our ESG assessment, Mega First has an established framework, internal policies, and tangible mid/long-term targets. Mega First's overall ESG score is 60, 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 (YTLP MK)

UTILITIES

	Quantitative Parameters (Score: 33)					
	Particulars	Unit	FY22	FY23	FY24	MLK MK (FY23)
	Scope 1 emissions	m tCO2e	3.7	3.9	4.2	16.5
	Scope 2 emissions	m tCO2e	0.1	0.2	0.2	0.1
	Total	m tCO2e	3.8	4.1	4.3	16.6
	Scope 3 emissions	m tCO2e	N/A	0.0	0.1	N/A
	Total	m tCO2e	3.8	4.1	4.4	16.6
E	GHG intensity (Scope 1 & 2)	tCO2e/MYR m rev	215.6	186.0	193.2	N/A
<u> </u>	Energy intensity	TJ/MYR m rev	3.6	3.5	3.6	N/A
	% RE usage	%	N/A	N/A	0.7%	0.3%
	Water usage	megalitres	2,702	2,875	2,580	2,532
	% waste recycled	%	97%	96%	97%	0.5%
	NOx emissions (PowerSeraya)	mg/m3	12-46	16-40	tba	94.9
	SOx emissions (PowerSeraya)	mg/m3	N/A	3-11	tba	94.8
	% of women in workforce	%	26.0%	26.0%	27.0%	16.4%
	% of women in management roles	%	0.0%	0.0%	33.3%	21.4%
S	Average training hours per employee	hours	14.8	10.6	13.9	7.6
	Lost time injury frequency (LTIF)	rate	N/A	N/A	1.04	0.73
	Community contribution	MYR m	N/A	N/A	24.3	21.6
	MD/CEO salary as % of net profit	%	0.4%	0.3%	0.2%	loss
G	Board salary as % of net profit	%	1.7%	1.2%	0.9%	loss
0	Independent directors on the Board	%	33%	33%	33%	56%
	Female directors on the Board	%	25%	25%	25%	11%

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. An ESG Committee chaired by the MD oversees the implementation of ESG strategies and related matters.
- b) Is the senior management salary linked to fulfilling ESG targets?

Unclear.

- c) Does the company follow the Task Force on Climate-Related Financial Disclosures (TCFD) framework for ESG reporting? Partly. Both PowerSeraya and Wessex Water adopt the TCFD framework.
- d) Does the company have a mechanism to capture Scope 3 emissions which parameters are captured?
- Yes. Parameters captured include business travel, outsourced activities, purchased electricity and fuels, treatment chemicals and reuse of biosolids on third party land.
- e) What are the 2-3 key carbon mitigation/water/waste management strategies adopted by the company?

Implemented various renewable energy integration projects across business units; raising water recycling rates at PowerSeraya

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

T (6 400)		
Target (Score: 100)		
Particulars	Target	Achieved
Carbon Neutral at YTL group	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
Net-zero total carbon emissions - PowerSeraya	2050	N/A
Impact		
NA		
Overall Score: 58		
As per our ESG matrix, YTLP (YTLP MK) has an overall score of 58.		

ESG score	Weights	Scores	Final Score
Quantitative	50%	33	17
Qualitative	25%	67	17
Target	25%	100	25
Total			58

As per our ESG assessment, YTLP has an established framework, internal policies, and tangible mid/long-term targets. YTLP's overall ESG score is **58**, which makes its ESG rating **above average** in our view (average ESG rating = 50; refer to Appendix I for our ESG Assessment Scoring).

Petronas Gas (PTG MK)

UTILITIES

	Quantitative Parameters (Score: 22)					
	Particulars	Unit	2021	2022	2023	GMB MK (FY23)
	Scope 1 emissions	m tCO2e	5.9	5.8	5.9	0.2
	Scope 2 emissions	m tCO2e	0.1	0.5	0.0	0.0
	Total	m tCO2e	6.0	6.3	5.9	0.2
	Scope 3 emissions	m tCO2e	N/A	N/A	N/A	N/A
	Total	m tCO2e	6.0	6.3	5.9	0.2
Ε	GHG intensity (Processing)	tCO2e/tonne	0.26	0.24	0.24	N/A
_	Energy intensity (Processing)	GJ/tonne	1.92	1.82	1.69	N/A
	RE usage	GWh	0.2	0.3	0.3	N/A
	Water consumption	megalitres	3,531	4,063	4,168	11.7
	Hazardous waste recycled	%	57 %	64%	74 %	N/A
	NOx emissions	tonne	7,499	8,020	7,713	N/A
	SOx emissions	tonne	86.4	27.8	47.3	N/A
	% of women in workforce	%	11.6%	12.0%	12.0%	29.5%
	% of women in management roles	%	21.0%	20.4%	22.9%	21.4%
S	Average training hours per employee	hours	125.1	65.5	104.7	39.8
	Lost time injury frequency (LTIF)	rate	0.00	0.50	0.75	0.00
	Community contribution	MYR m	N/A	N/A	5.2	0.6
	MD/CEO salary as % of net profit	%	0.1%	0.1%	0.1%	0.7%
G	Board salary as % of net profit	%	0.1%	0.1%	0.1%	0.5%
-G	Independent directors on the Board	%	60%	56%	50%	38%
	Female directors on the Board	%	40%	33%	38%	13%

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. PTG has a Board Risk & Sustainability Committee which has oversight on ESG matters and a Sustainable Development Working Committee headed by the MD/CEO.

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

Yes. Sustainability matters are incorporated into senior management's KPIs.

- c) Does the company follow the Task Force on Climate-Related Financial Disclosures (TCFD) framework for ESG reporting? Yes. Full alignment by 2024.
- 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?

Invested in flare reduction and energy efficiency initiatives; begun to supply carbon dioxide (previously a waste product) to customers.

f) 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
20% emission reduction in 2030 (from 2019 baseline)	20%	4%
Phase out R22 refrigerants by 2030	2030	N/A
Zero fatalities, major fires, major loss of primary containment, major security incidents by 2025	0	0
Impact		
NA NA		
Overall Score: 57		
As per our ESG matrix, PTG (PTG MK) has an overall score of 57.		

ESG score	Weights	Scores	Final Score
Quantitative	50%	22	11
Qualitative	25%	83	21
Target	25%	100	25
Total			57

As per our ESG assessment, PTG has an established framework, internal policies, and tangible mid/long-term targets. PTG's overall ESG score is **57**, which makes its ESG rating **above average** in our view (average ESG rating = 50; refer to Appendix I for our ESG Assessment Scoring).

Gas Malaysia (GMB MK)

UTILITIES

Quantitative Parameters (Score: 22)						
	Particulars	Unit	2021	2022	2023	PTG MK (FY23)
	Scope 1 emissions	m tCO2e	0.0	0.2	0.2	5.9
	Scope 2 emissions	m tCO2e	0.0	0.0	0.0	0.0
	Total	m tCO2e	0.0	0.2	0.2	5.9
	Scope 3 emissions	m tCO2e	N/A	N/A	N/A	N/A
	Total	m tCO2e	0.0	0.2	0.2	5.9
Ε	GHG intensity (Scope 1 and 2)	tCO2e/MYR m rev	3.6	23.3	22.6	N/A
	Energy intensity	TJ/MYR m rev	N/A	0.41	0.39	N/A
	Biomethane injected	tn BTU	N/A	N/A	0.047	N/A
	Water consumption	megalitres	10.2	15.6	11.7	4,168
	Fabric collected for recycling	kg	5,308	5,808	5,262	N/A
	NOx emissions	mg/m3	N/A	N/A	N/A	N/A
	SOx emissions	mg/m3	N/A	N/A	N/A	N/A
	% of women in workforce	%	28.0%	29.0%	29.5%	12.0%
	% of women in management roles	%	15.4%	20.8%	21.4%	22.9 %
S	Average training hours per employee	hours	23.8	29.1	39.8	104.7
	Lost time injury frequency (LTIF)	rate	0.00	2.44	0.00	0.75
	Community contribution	MYR m	N/A	0.5	0.6	5.2
	MD/CEO salary as % of net profit	%	1.0%	0.7%	0.7%	0.1%
G	Board salary as % of net profit	%	0.7%	0.5%	0.5%	0.1%
	Independent directors on the Board	%	75%	56%	38%	50%
	Female directors on the Board	%	13%	11%	13%	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 a risk committee?

Yes. The Board Risk and Compliance Committee has oversight of sustainability issues.

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

Yes. Sustainability performance will be included in the 2024 Balance Scorecard.

- c) Does the company follow the Task Force on Climate-Related Financial Disclosures (TCFD) framework for ESG reporting? Not yet.
- d) Does the company have a mechanism to capture Scope 3 emissions which parameters are captured?
- e) What are the 2-3 key carbon mitigation/water/waste management strategies adopted by the company?

Exploring waste-to-energy solutions such as extracting methane released from Palm Oil Mill Effluent to augment its natural gas supply; generating electricity through more efficient gas-powered combined heat and power systems.

f) 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 increase in green gas injected into Natural Gas Distribution System	Growth	2023 base			
Impact					
NA					
Overall Score: 53					
As per our ESG matrix, GMB (GMB MK) has an overall score of 53.					

ESG score	Weights	Scores	Final Score
Quantitative	50%	22	11
Qualitative	25%	67	17
Target	25%	100	25
Total			53

As per our ESG assessment, GMB has an established framework, internal policies and tangible mid/long-term targets. GMB's overall ESG score is **53**, which makes its ESG rating **above average** in our view (average ESG rating = 50; refer to Appendix I for our ESG Assessment Scoring).



Malakoff (MLK MK) UTILITIES

Quantitative Parameters (Score: 17)						
	Particulars	Unit	2021	2022	2023	YTLP MK (FY24)
	Scope 1 emissions	m tCO2e	17.8	16.8	16.5	4.2
	Scope 2 emissions	m tCO2e	0.1	0.1	0.1	0.2
	Total	m tCO2e	17.8	16.9	16.6	4.3
	Scope 3 emissions	m tCO2e	N/A	N/A	N/A	0.1
	Total	m tCO2e	17.8	16.9	16.6	4.4
Е	GHG intensity (Scope 1 and 2)	tCO2e/MWh	0.84	0.86	0.77	N/A
-	Electricity consumption	GWh	102.5	118.8	105.7	N/A
	% RE generation	%	0.1%	0.2%	0.3%	0.7%
	Water usage	megalitres	2,469	2,344	2,532	2,580
	% waste recycled (Alam Flora)	%	0.4%	0.5%	0.5%	N/A
	NOx emissions	mg/m3	70.9	61.1	94.9	tba
	SOx emissions	mg/m3	73.6	68.9	94.8	tba
	% of women in workforce	%	16.6%	17.7%	16.4%	27.0%
	% of women in management roles	%	13.3%	12.5%	21.4%	33.3%
S	Average training hours per employee	hours	1.7	8.4	7.6	13.9
	Lost time injury frequency (LTIF)	rate	0.16	0.29	0.73	1.04
	Community contribution	MYR m	12.2	36.0	21.6	24.3
	MD/CEO salary as % of net profit	%	0.6%	0.8%	loss	0.2%
G	Board salary as % of net profit	%	0.7%	0.8%	loss	0.9%
<u> </u>	Independent directors on the Board	%	38%	56%	56%	33%
	Female directors on the Board	%	11%	11%	11%	25%

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. Malakoff has established and implemented an ESG Framework and has a standalone Sustainability Department which reports to management and the Board.

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

Yes

- c) Does the company follow the Task Force on Climate-Related Financial Disclosures (TCFD) framework for ESG reporting? No.
- d) 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 producer.

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

Malakoff aims to increase its RE capacity, invest in co-firing / fuel switching studies and expand its waste management business.

f) 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			
30% reduction in GHG emissions by 2031 (from 2019 baseline)	30%	N/A			
1,400MW RE capacity by 2031	1,400 MW	153 MW			
15-20% recycling rate of waste collected by Alam Flora	15-20%	0.5%			
Impact					
NA					
Overall Score: 50					
As per our ESG matrix, Malakoff (MLK MK) has an overall score of 50.					

ESG score	Weights	Scores	Final Score
Quantitative	50%	17	9
Qualitative	25%	67	17
Target	25%	100	25
Total			50

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



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November 19, 2024 167



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November 19, 2024 170