



Art'o'val Advisors

True Art of Valuation

Valuation Series

Valuation of a Plantation

May 2025

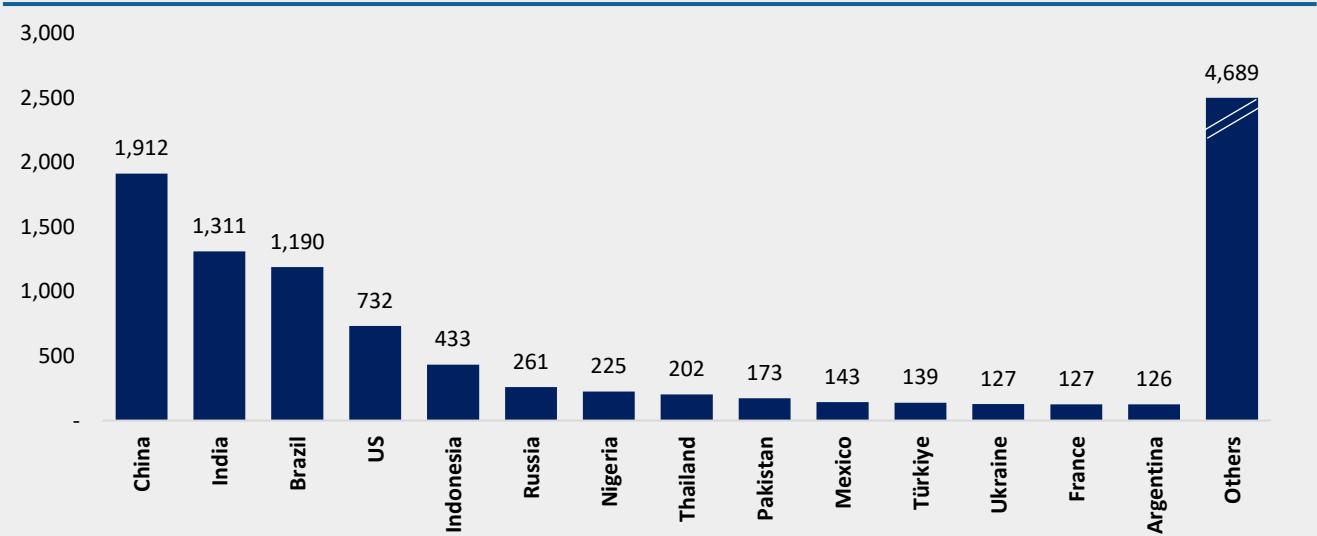


Plantation Sector at a Glance

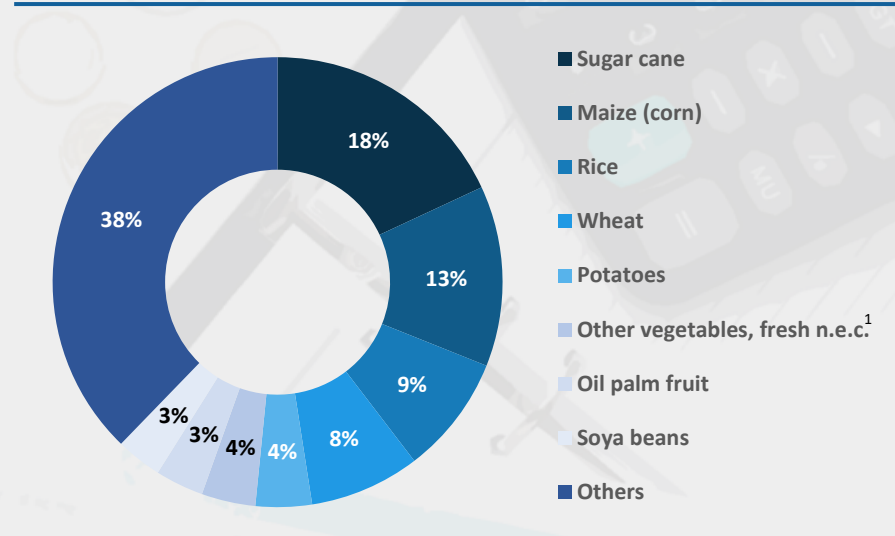
Plantation Agriculture – A Key Driver of Global Agribusiness

Plantation agriculture is a large-scale **commercial farming** practice that focuses on cultivating a **single crop** for profit. It is **capital-intensive**, requiring substantial investment, skilled labor, and advanced farming techniques such as artificial irrigation, fertilizers, and pesticides to enhance productivity. Predominantly found in **tropical regions** due to favorable climate conditions, plantation agriculture supports the global supply of key commodities such as coffee, sugarcane, cotton, tobacco, tea, rubber, oil palm, and bananas. Additionally, an **extensive transportation network** connects plantations to processing units and export hubs, ensuring **efficient distribution**.

Production by Country - 2023 (11,791 Million Tons)



Commodity Split (FY 2023)

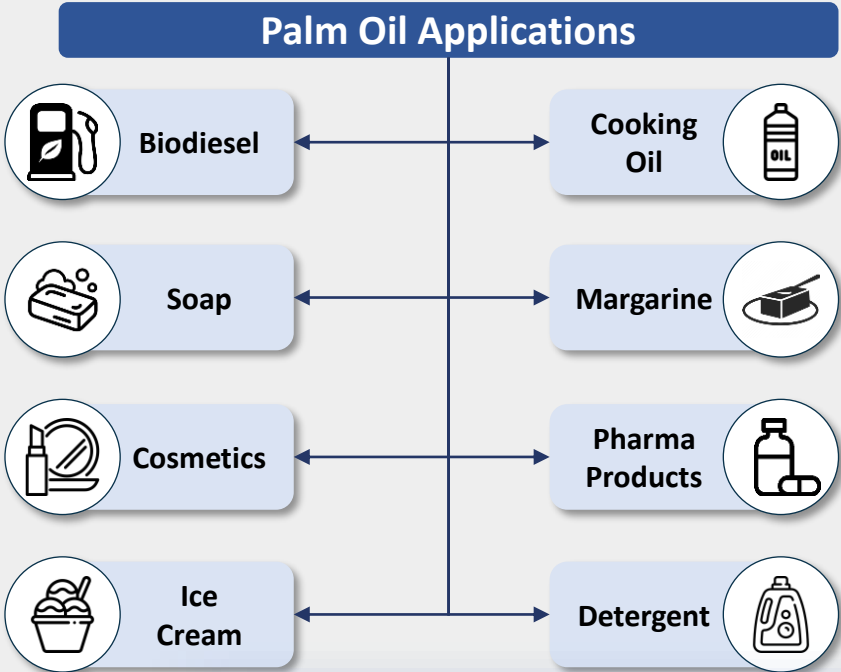


Note: (1) Other vegetables, fresh n.e.c includes the fresh vegetables not elsewhere classified

Introduction to Palm Oil Plantations

Palm Oil – The World's Most Versatile Edible Oil

Oil palm is a tropical crop known for its high oil yield and versatile applications across food, personal care, and industrial sectors. It produces palm oil, a vegetable oil extracted from the fruit of the oil palm tree. Despite making up a small part of the U.S. diet, palm oil is found in over 50% of packaged products globally. With rising demand, the industry continues to expand—but often at the cost of tropical forests, wildlife habitats, and local communities. Sustainability is a growing focus in response to these concerns.



Key Features		
1	High Yield	Produces up to 9x more oil per hectare than other oil crops
2	Long Life Cycle	Productive for 25–30 years, with harvest beginning in 3 years
3	Global Presence	Present in 50%+ of all packaged consumer goods
4	Environmental Impact	Expansion linked to deforestation and biodiversity loss
5	Economic Role	Major source of income for tropical economies

Food & beverages end-use dominated the market with a revenue share of more than 66.5% in 2023

From Seed to Supply: The Journey of Palm Oil

Step 1



- Palm oil production begins with palm oil seeds
- Seeds are grown in the nursery for about 12 months where they receive daily watering and upkeep

Step 2



- Young seedlings of 12 months old planted into plantations where they are watered and treated with fertilizer as needed while they grow

Step 3



- After 30 months, the palms mature and are ready for their first harvest, which occurs every 7–10 days thereafter
- Oil Palms bears fruit also called Fresh Fruit bunches (FFB). This act as the main raw material for the crude palm oil

Step 4



- FFBs are transported from plantations to mills
- By steaming, the FFB are sterilized, then stripped from the bunches
- Long fibers are used in upholstery (cushions) Empty bunches serve as organic fertilizer

Step 5



- Once stripped from the FFB, palm fruits are processed into Crude Palm Oil (CPO) and Palm Kernel Oil (PKO)
- Fruits are pressed to produce CPO. Nuts are crushed and Kernels pressed to produce PKO
- Waste is used as bio fertilizer and to produce bio gas to power the mill

Step 6



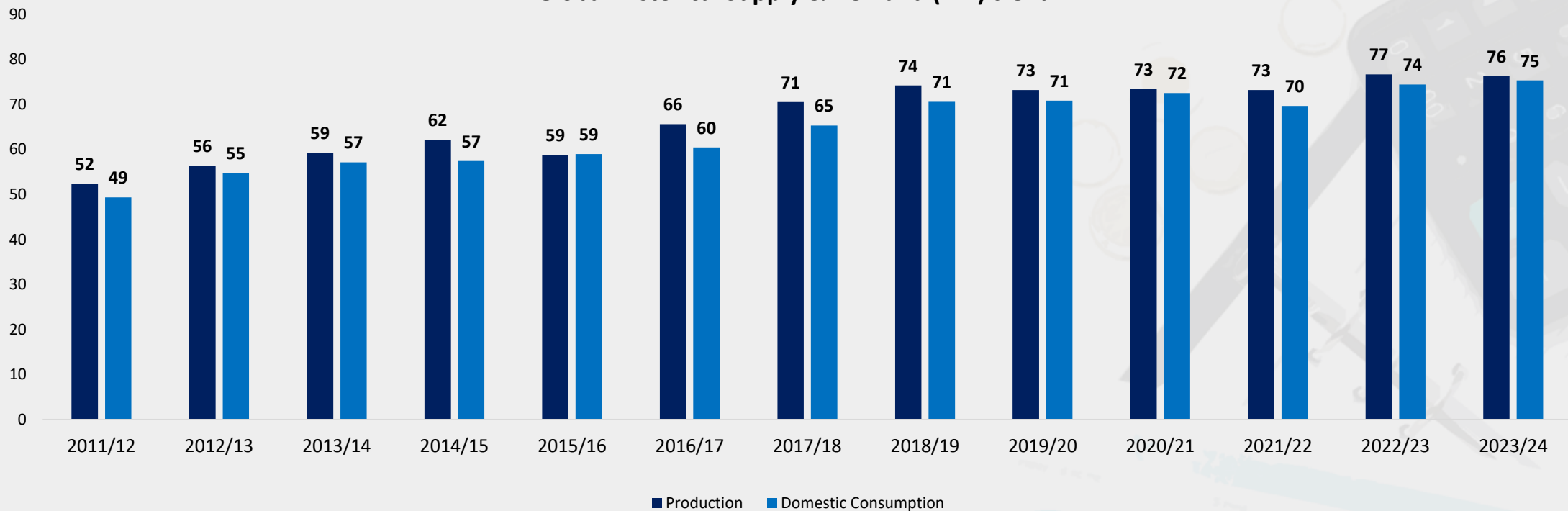
- CPO is transferred to a refinery where it is processed into edible oils (cooking oil, cream and margarine), oleo chemicals (used in detergents and lubricants), biodiesel (fuel) and lauric acids (used in cosmetics and soaps)

Industry Overview (1/2)

The Future of Palm Oil – Growth vs. Sustainability

Palm oil is the most widely consumed vegetable oil worldwide, accounting for approximately 35% of total global consumption. The global palm oil market is projected to reach USD 100 billion by 2030, growing at a **5.1% CAGR** from 2023 to 2030. The **ASEAN region** remains the leading hub for palm oil cultivation, with **Indonesia** and **Malaysia** playing a crucial role in global supply and price determination.

Global Historical Supply & Demand (MT) trend

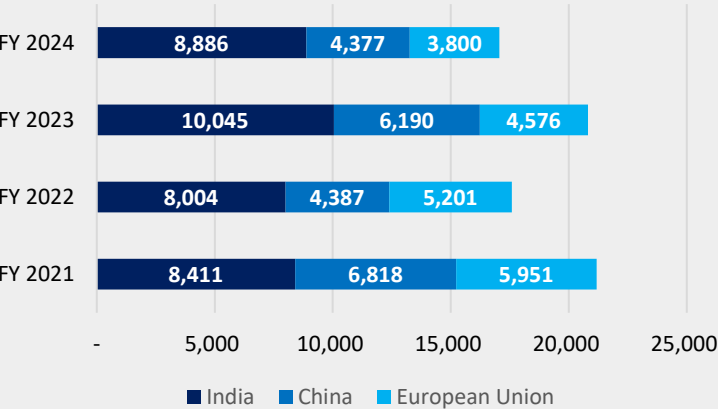


Industry Overview (2/2)

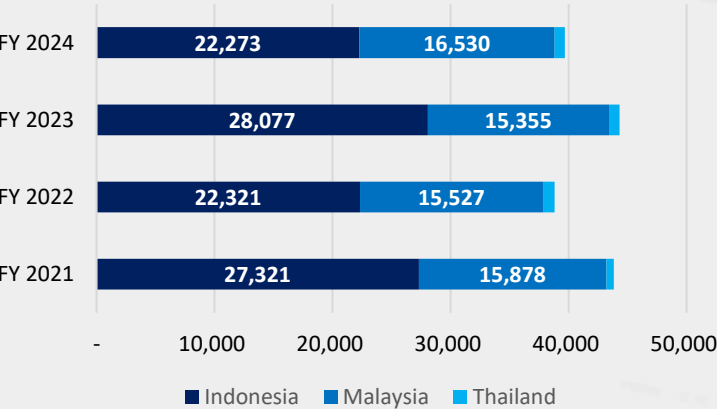
Key Producers and Supply Chain Dynamics

Palm oil is the most cost-effective vegetable oil to produce, largely due to its exceptionally high yield, which is **6 to 10 times** greater than that of other oil crops such as soy, rapeseed, sunflower, coconut, and olive. As of 2024, global palm oil production reached 76.3 million tonnes, accounting for approximately **35% of total vegetable oil production** and consumption worldwide. Despite the high demand, global palm oil production grew at a moderate **CAGR of 0.6%** between 2019 and 2024. In terms of consumption, palm oil's end use in 2024 was split between **food applications**, which accounted for **65%**, and **industrial purposes**, which made up the remaining **35%**.

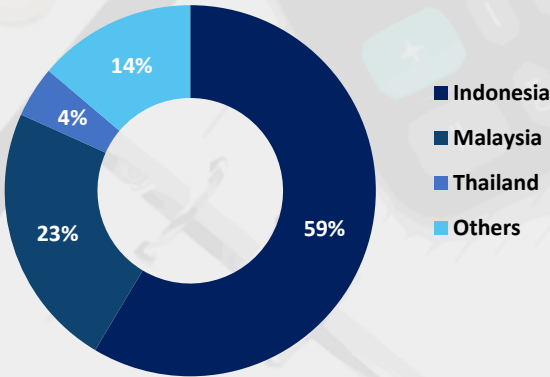
Palm Oil Imports - Top 3 Countries
(Million Metric ton)



Palm Oil Exports - Top 3 Countries
(Million Metric ton)



Palm Oil Production (2023)-
Top 3 Countries



Environmental Impact of Palm Oil Plantations

Deforestation, Emissions, and Biodiversity: The True Cost of Palm Oil

Habitat Loss

The expansion of palm oil plantations destroys habitats for endangered species, disrupts ecosystems, and increases human-wildlife conflict. Protected areas like Tesso Nilo have lost 43% of their land to illegal planting.

Soil & Water Pollution

Palm oil mills generate 2.5 metric tons of effluent per ton of oil, polluting freshwater. Fertilizers and pesticides further contaminate water sources, while deforestation on steep slopes accelerates erosion, floods, and infrastructure damage.

Soil Erosion

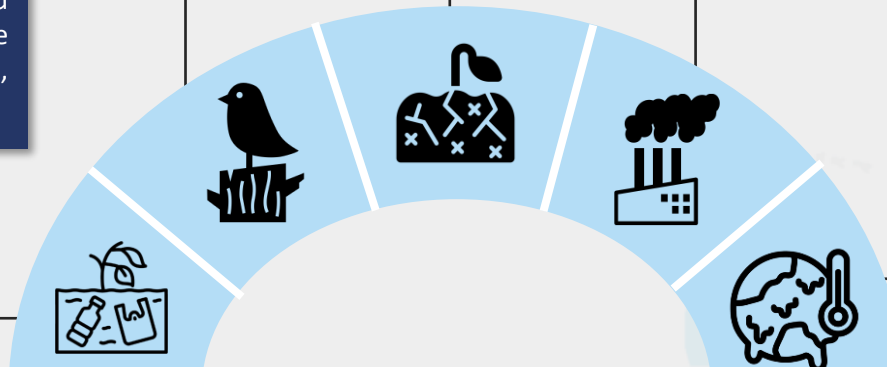
Erosion is a major environmental impact of palm oil plantations, especially when forests are cleared, or oil palms are planted on steep slopes. It leads to increased flooding, siltation in rivers, and higher input needs, including fertilizers and infrastructure repairs.

Air Pollution

Forest burning for palm oil plantations emits smoke and CO₂, worsening air pollution and climate change. Peat fires are especially harmful, releasing large amounts of greenhouse gases.

Climate Change

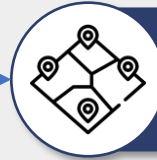
Draining peat forests releases large amounts of stored carbon, contributing to greenhouse gas emissions. Widespread deforestation has made Indonesia the third-largest emitter of greenhouse gases globally.



Driving Performance: Core Operational Metrics



Operating Metrics



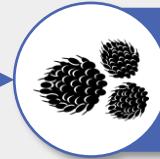
Total Land Bank

- Indicates the total land area owned or leased by the company, including both planted and unplanted areas
- Important for understanding asset base and expansion potential



Total Planted Hectare

- Reflects the portion of the land bank actively used for oil palm cultivation
- Directly impacts production capacity



FFB Production (Million MT)

- Stands for Fresh Fruit Bunches production
- A key operational metric; higher FFB yield typically results in higher CPO output



CPO Extraction Rate

- Measures the efficiency of converting FFB into CPO
- A critical efficiency metric; industry average usually ranges between 19–22%



CPO Production (Million MT)

- Represents the volume of crude palm oil produced
- One of the most important KPIs for revenue generation



Average Realized CPO Prices (per MT)

- Indicates the average selling price achieved per metric ton of CPO
- Directly affects revenue and profitability

Valuation Playbook: Key KPIs for CPO Plantations

EV per Planted Hectare

Enterprise Value ÷ Total Planted Hectarage

- Most **widely used valuation metric** for comparing plantation companies
- Reflects the market's valuation per hectare of productive land
- Often compared **across peers by region and maturity profile**

EV/EBITDA

Enterprise Value ÷ EBITDA

- Standard valuation multiple for assessing operational profitability
- Useful when **comparing vertically integrated players**

Price to Earnings (P/E) Ratio

Market Price ÷ Earnings Per share

- Common but can be **volatile** due to **cyclical nature of CPO prices**
- Best used with normalized earnings

Net Asset Value (NAV)

NAV = Fair Value of Total Assets – Fair Value of Total Liabilities

- Especially relevant for **land-rich plantation companies**
- Land is often **undervalued on balance sheets**; market NAV adjustments matter

Competitive Benchmarking: Peer Insights (1/2)

Company	SD Guthrie Berhad	FGV Holdings Berhad	Kuala Lumpur Kepong Berhad	IOI Corporation Berhad
Business Description	Upstream (end-to-end production of CPO), Downstream (Refinery), Renewables, and R&D	Plantations, Sugar and Logistics & Support Businesses.	Oil palm (98%) and rubber (2%) production	Cultivation of oil palm and processing of palm oil with operations in seed breeding, cultivation and crop oil extraction
Operating Summary:	<ul style="list-style-type: none"> • Total Land Bank (Hectare) • Total Planted Hectare • FFB production (Million MT) • CPO extraction rate • CPO Production (Million MT) • Avg. Realized CPO prices (RM/MT) 	<ul style="list-style-type: none"> • 729,870 • 568,323 • 8.8 • 20.9% • 2.2 • 4,101 • 438,867 • 344,472 • Internal= 4.0 External= 10.2 Total Received = 14.2 • 20.6% • 2.9 • 4,102 	<ul style="list-style-type: none"> • 355,165 • 300,028 • 6.2 • 21.4% • 1.3 • 3,563 	<ul style="list-style-type: none"> • 205,073 • 176,202 • 2.8 • 21.8% • 0.6 • 3,856
Financial Summary:	<ul style="list-style-type: none"> • EV per Planted Hectare (US\$) • Revenue Growth (CAGR 2021-24) • EBITDA Margin (2024) • Net Leverage Ratio 	<ul style="list-style-type: none"> • 94.4 • (0.1%) • 23.9% • 1.0x • 130.5 • 1.8% • 5.8% • 4.7x 	<ul style="list-style-type: none"> • 317.4 • 4.3% • 12.5% • 3.5x 	<ul style="list-style-type: none"> • 1,890.8 • (9.1%) • 15.3% • 1.4x

Competitive Benchmarking: Peer Insights (2/2)



SARAWAK OIL PALMS BERHAD
GROUP OF COMPANIES

UP

UNITED PLANTATIONS BERHAD



HAP SENG
PLANTATIONS



KIM LOONG
RESOURCES BERHAD
錦隆資源有限公司
(197501000001) (3076-K)

Company	Sarawak Oil Palms Berhad	United Plantations Berhad	Hap Seng Plantations Holdings Berhad	Kim Loong Resources Berhad
Business Description	Involved primarily in the cultivation of oil palms and the operation of palm oil mills	Focused on cultivation of oil palm and coconuts	Engaged in upstream palm oil operations, cultivating oil palms and producing crude palm oil (CPO) from fresh fruit bunches at its own mills.	Oil palm plantations and milling
Operating Summary:				
• Total Land Bank (Hectare)	• 122,000	• 62,500	• 40,279	• 16,922
• Total Planted Hectare	• 82,309	• 50,584	• 35,002	• 16,263
• FFB production (Million MT)	• Internal= 1.2 External= 0.7 Total = 1.9	• 0.1	• 0.7	• 0.3
• CPO extraction rate	• 20.6%	• 20.8%	• 20.8%	• 20.4%
• CPO Production (Million MT)	• 0.4	• 0.3	• 0.2	• 0.3
• Avg. Realized CPO prices (RM/MT)	• 3,862	• 4,207	• 4,791	• 4,291
Financial Summary:				
• EV per Planted Hectare (US\$)	• 1,550.2	• 569.6	• 2,261.2	• 2,2602
• Revenue Growth (CAGR 2021-24)	• 0.5%	• 0.7%	• 1.5%	• 10.3%
• EBITDA Margin (2024)	• 13.6%	• 43.5%	• 47.3%	• 16.5%
• Net Leverage Ratio	• NM	• NM	• NM	• NM

Trading Comparable

Company	HQ	Share Price (lc)	Market Cap. (mn)	EV (mn)	EV/ Revenue					EV/ EBITDA					P/ E				
					FY21	FY22	FY23	FY24	LTM	FY21	FY22	FY23	FY24	LTM	FY21	FY22	FY23	FY24	LTM
SD Guthrie Berhad	Malaysia	1.1	7,339.4	8,506.5	1.9x	1.8x	2.1x	1.9x	1.9x	7.2x	8.4x	12.6x	8.0x	8.0x	13.6x	12.9x	18.1x	23.5x	15.2x
IOI Corporation Berhad	Malaysia	0.8	5,156.8	5,549.9	2.0x	1.6x	2.2x	2.7x	2.3x	15.4x	9.7x	13.4x	17.0x	15.3x	15.4x	13.2x	21.6x	19.9x	17.8x
Kuala Lumpur Kepong Berhad	Malaysia	4.4	4,950.7	7,475.2	1.6x	1.3x	1.5x	1.4x	1.5x	8.7x	8.1x	13.1x	11.2x	11.9x	9.2x	10.6x	27.9x	20.1x	37.9x
United Plantations Berhad	Malaysia	5.2	3,259.0	3,118.8	6.3x	5.4x	6.8x	6.2x	6.0x	16.9x	14.8x	14.3x	14.0x	13.3x	26.2x	23.7x	21.1x	19.4x	19.4x
Bumitama Agri Ltd.	Indonesia	0.6	1,126.9	1,365.0	1.6x	1.3x	1.4x	1.3x	1.3x	5.5x	3.8x	4.7x	4.8x	4.7x	9.3x	6.2x	7.1x	7.9x	7.8x
FGV Holdings Berhad	Malaysia	0.2	889.0	2,587.0	0.6x	0.4x	0.6x	0.5x	0.5x	4.4x	4.4x	10.2x	9.0x	9.0x	3.2x	2.9x	40.1x	10.4x	14.4x
Johor Plantations Group Berhad	Malaysia	0.3	676.8	901.1	2.4x	2.3x	3.3x	2.6x	2.6x	5.9x	5.5x	11.5x	8.0x	8.0x	8.2x	6.0x	18.6x	11.8x	11.7x
M.P. Evans Group PLC	UK	12.7	674.9	635.0	2.3x	1.9x	2.1x	1.8x	1.8x	5.2x	5.0x	6.3x	4.5x	4.4x	7.8x	9.2x	12.9x	7.6x	7.5x
Sarawak Oil Palms Berhad	Malaysia	0.7	600.4	395.1	0.4x	0.3x	0.4x	0.4x	0.3x	1.8x	2.1x	3.2x	2.5x	2.3x	4.9x	5.5x	9.2x	6.7x	5.9x
Kim Loong Resources Berhad	Malaysia	0.5	505.6	449.7	1.9x	1.1x	1.0x	1.4x	1.2x	11.4x	7.5x	6.8x	8.2x	7.2x	21.5x	15.5x	13.3x	15.3x	13.9x
Hap Seng Plantations Holdings Berhad	Malaysia	0.4	351.5	223.8	1.4x	1.2x	1.5x	1.3x	1.3x	2.6x	3.0x	5.6x	2.8x	2.8x	6.5x	7.3x	17.6x	11.4x	7.7x
The Okomu Oil Palm Company Plc	Nigeria	0.4	339.2	349.2	3.8x	2.6x	4.1x	4.1x	3.6x	7.5x	5.5x	9.1x	9.7x	7.4x	12.1x	9.4x	14.6x	15.2x	13.1x
PT Austindo Nusantara Jaya Tbk	Indonesia	0.1	324.7	453.3	1.7x	1.7x	1.9x	1.9x	1.9x	5.5x	6.7x	9.5x	7.9x	7.8x	8.8x	14.9x	63.0x	33.6x	33.6x
Kretam Holdings Berhad	Malaysia	0.1	277.2	266.0	1.4x	1.4x	1.6x	1.6x	1.6x	5.4x	6.4x	6.9x	7.9x	7.8x	7.5x	11.2x	11.7x	7.1x	7.0x
PT Jhonlin Agro Raya Tbk	Indonesia	0.0	200.4	297.1	6.8x	1.0x	1.0x	1.2x	1.2x	NM	13.0x	11.8x	8.3x	8.3x	NM	NM	NM	12.3x	12.3x
Innoprise Plantations Berhad	Malaysia	0.4	191.2	182.1	3.3x	3.0x	3.7x	2.9x	2.9x	5.7x	6.2x	9.6x	5.8x	5.7x	9.2x	10.1x	16.7x	9.8x	9.6x
Chin Teck Plantations Berhad	Malaysia	1.9	170.1	68.9	1.6x	1.2x	1.6x	1.1x	1.1x	3.5x	2.5x	5.4x	2.6x	2.4x	10.4x	7.1x	14.8x	7.7x	7.6x
PT Eagle High Plantations Tbk	Indonesia	0.0	107.0	387.7	1.9x	1.3x	1.4x	1.5x	1.4x	6.9x	5.4x	5.4x	4.5x	4.5x	NM	NM	9.3x	6.4x	6.4x
NPC Resources Berhad	Malaysia	0.6	70.0	112.7	1.3x	1.2x	1.2x	1.0x	1.0x	6.1x	8.2x	6.2x	3.6x	3.6x	27.9x	NM	33.5x	7.6x	7.6x
Benso Oil Palm Plantation PLC	Ghana	1.7	60.7	57.3	1.6x	1.6x	1.9x	2.4x	2.4x	3.3x	3.3x	6.0x	7.4x	7.4x	4.0x	3.7x	7.1x	9.6x	9.6x
Cepatwawasan Group Berhad	Malaysia	0.2	50.5	38.2	0.4x	0.5x	0.6x	0.6x	0.6x	1.7x	2.3x	3.3x	2.9x	2.9x	4.2x	7.0x	11.4x	10.5x	10.4x
MHC Plantations Bhd.	Malaysia	0.2	47.0	91.1	0.6x	0.7x	0.9x	0.8x	0.8x	2.9x	3.6x	5.3x	4.3x	4.3x	4.7x	5.9x	9.8x	7.3x	7.5x
Riverview Rubber Estates, Berhad	Malaysia	0.6	41.6	35.6	2.7x	2.8x	4.7x	4.8x	4.7x	4.5x	6.9x	16.4x	12.6x	12.4x	7.5x	12.9x	30.5x	22.0x	21.7x
Kencana Agri Limited	Indonesia	0.1	19.5	189.1	1.5x	1.2x	1.4x	1.2x	1.2x	3.2x	4.6x	7.6x	3.6x	3.6x	1.2x	7.5x	NM	1.6x	1.6x
Mean					2.1x	1.6x	2.0x	2.0x	1.9x	6.2x	6.1x	8.5x	7.1x	6.9x	10.1x	9.7x	19.5x	12.7x	12.8x
Median					1.7x	1.3x	1.5x	1.4x	1.5x	5.5x	5.5x	7.2x	7.6x	7.3x	8.5x	9.2x	15.8x	10.4x	10.0x

Trading Comparable: Operating Performance

Company	HQ	CAGR (2021-2024)			EBITDA Margin					Net Income Margin				
		Revenue	EBITDA	Net Income	FY21	FY22	FY23	FY24	LTM	FY21	FY22	FY23	FY24	LTM
SD Guthrie Berhad	Malaysia	(0.1%)	(3.7%)	(16.7%)	26.7%	21.1%	16.8%	23.9%	23.9%	12.2%	11.8%	10.1%	7.0%	10.9%
IOI Corporation Berhad	Malaysia	(9.1%)	(3.2%)	(8.3%)	13.3%	16.2%	16.7%	16.0%	15.3%	12.4%	11.1%	9.6%	12.7%	12.1%
Kuala Lumpur Kepong Berhad	Malaysia	4.3%	(8.0%)	(23.1%)	17.9%	15.9%	11.4%	12.3%	12.5%	11.3%	8.0%	3.5%	4.6%	2.6%
United Plantations Berhad	Malaysia	0.7%	6.5%	10.5%	37.4%	36.4%	47.4%	44.3%	45.3%	25.2%	23.8%	33.6%	33.4%	32.5%
Bumitama Agri Ltd.	Indonesia	6.5%	4.5%	5.5%	29.0%	35.2%	29.2%	27.3%	27.3%	14.1%	17.9%	15.9%	13.7%	13.7%
FGV Holdings Berhad	Malaysia	1.8%	(21.1%)	(32.8%)	12.4%	10.2%	6.0%	5.8%	5.8%	6.0%	5.2%	0.5%	1.7%	1.2%
Johor Plantations Group Berhad	Malaysia	(2.8%)	(9.6%)	(11.4%)	41.0%	40.9%	28.6%	33.1%	33.1%	22.3%	28.3%	13.3%	16.9%	16.9%
M.P. Evans Group PLC	UK	8.5%	5.2%	0.6%	44.1%	38.8%	32.7%	40.3%	40.3%	31.2%	22.3%	17.1%	24.9%	24.9%
Sarawak Oil Palms Berhad	Malaysia	0.5%	(6.4%)	(9.9%)	20.2%	15.7%	11.1%	14.6%	13.6%	11.5%	9.0%	5.9%	8.3%	7.9%
Kim Loong Resources Berhad	Malaysia	10.3%	11.6%	12.0%	16.4%	14.7%	14.7%	17.0%	16.5%	9.8%	8.0%	8.5%	10.2%	9.6%
Hap Seng Plantations Holdings Berhad	Malaysia	1.5%	(2.0%)	(16.9%)	52.6%	40.1%	27.4%	47.3%	47.3%	33.4%	25.8%	13.7%	18.3%	27.2%
The Okomu Oil Palm Company Plc	Nigeria	1.2%	0.1%	(2.5%)	50.8%	47.2%	50.7%	49.1%	49.1%	30.7%	27.1%	24.0%	27.5%	27.5%
PT Austindo Nusantara Jaya Tbk	Indonesia	(4.0%)	(11.1%)	(36.1%)	30.8%	25.1%	20.2%	24.4%	24.4%	13.8%	8.1%	2.2%	4.1%	4.1%
Kretam Holdings Berhad	Malaysia	(4.7%)	(11.5%)	2.0%	25.9%	21.4%	22.6%	20.8%	20.8%	19.5%	12.7%	13.8%	23.9%	23.9%
PT Jhonlin Agro Raya Tbk	Indonesia	76.7%	75.0%	144.1%	15.3%	7.7%	8.8%	14.9%	14.9%	2.6%	0.9%	1.7%	6.7%	6.7%
Innoprise Plantations Berhad	Malaysia	4.0%	(0.8%)	(2.0%)	58.1%	47.8%	38.9%	50.4%	50.4%	37.4%	30.7%	23.4%	31.4%	31.4%
Chin Teck Plantations Berhad	Malaysia	11.7%	11.2%	7.2%	44.2%	47.6%	28.7%	43.7%	45.6%	37.3%	41.3%	25.9%	33.0%	35.9%
PT Eagle High Plantations Tbk	Indonesia	9.0%	15.3%	(154.7%)	27.1%	24.4%	26.3%	32.1%	32.1%	(47.8%)	0.4%	4.2%	6.0%	6.0%
NPC Resources Berhad	Malaysia	9.8%	19.2%	54.5%	21.9%	14.5%	18.7%	28.0%	28.0%	3.0%	(0.4%)	2.1%	8.3%	8.3%
Benso Oil Palm Plantation PLC	Ghana	(12.6%)	(23.4%)	(25.5%)	49.0%	49.4%	32.7%	32.9%	32.9%	43.2%	47.1%	29.2%	26.8%	26.8%
Cepatwawasan Group Berhad	Malaysia	(7.9%)	(16.0%)	(26.5%)	25.2%	20.5%	17.5%	19.1%	19.1%	13.9%	8.8%	6.7%	7.1%	7.1%
MHC Plantations Bhd.	Malaysia	(7.8%)	(11.9%)	(14.0%)	21.8%	18.8%	16.5%	19.0%	19.0%	7.0%	5.8%	4.6%	5.7%	5.7%
Riverview Rubber Estates, Berhad	Malaysia	(17.9%)	(29.1%)	(30.3%)	59.6%	40.9%	28.9%	38.3%	38.3%	41.8%	25.6%	18.1%	25.5%	25.5%
Kencana Agri Limited	Indonesia	6.2%	(3.5%)	(10.8%)	45.9%	26.7%	18.3%	34.5%	34.5%	13.1%	1.7%	(0.2%)	7.8%	7.8%
Mean		3.6%	(0.5%)	(7.7%)	32.8%	28.2%	23.8%	28.7%	28.7%	16.9%	15.9%	12.0%	15.2%	15.7%
Median		1.3%	(3.4%)	(10.3%)	28.1%	24.7%	21.4%	27.6%	27.6%	13.9%	11.5%	9.9%	11.5%	11.5%



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Thank You



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