

8. IMR REPORT

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SMITH ZANDER

Date: 27 March 2023

The Board of Directors

MKH Oil Palm (East Kalimantan) Berhad

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Wisma MKH
Jalan Semenyih
43000 Kajang
Selangor

Dear Sir / Madam,

Independent Market Research Report on the Oil Palm Industry in Indonesia (“IMR Report”)

This IMR Report has been prepared by SMITH ZANDER INTERNATIONAL SDN BHD (“**SMITH ZANDER**”) for inclusion in the draft Prospectus in conjunction with the proposed listing of MKH Oil Palm (East Kalimantan) Berhad on the Main Market of Bursa Malaysia Securities Berhad.

The objective of this IMR Report is to provide an independent view of the industry and market(s) in which MKH Oil Palm (East Kalimantan) Berhad and its proposed subsidiaries (“**MKHOP Group**”) operate and to offer a clear understanding of the industry and market dynamics. MKHOP Group is an upstream oil palm plantation group and its operations are based in East Kalimantan, Indonesia. Through its subsidiaries, it is principally involved in the cultivation of oil palm plantation and the production and sale of crude palm oil and palm kernel. Hence, the scope of work for this IMR Report will address the following areas:

- (i) The oil palm industry in Indonesia;
- (ii) Industry performance, size and growth;
- (iii) Key industry drivers, risk and challenges;
- (iv) Competitive overview; and
- (v) Outlook and prospects.

The research process for this study has been undertaken through secondary or desktop research, as well as detailed primary research when required, which involves discussing the status of the industry with leading industry participants. Quantitative market information could be sourced from interviews by way of primary research and therefore, the information is subject to fluctuations due to possible changes in business, industry and economic conditions.

SMITH ZANDER has prepared this IMR Report in an independent and objective manner and has taken adequate care to ensure the accuracy and completeness of the report. We believe that this IMR Report presents a balanced view of the industry within the limitations of, among others, secondary statistics and primary research, and does not purport to be exhaustive. Our research has been conducted with an “overall industry” perspective and may not necessarily reflect the performance of individual companies in this IMR Report. SMITH ZANDER shall not be held responsible for the decisions and/or actions of the readers of this report. This report should also not be considered as a recommendation to buy or not to buy the shares of any company or companies mentioned in this report or otherwise.

For and on behalf of SMITH ZANDER:



DENNIS TAN TZE WEN
MANAGING PARTNER

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The research for this IMR Report was completed on 7 March 2023.

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About SMITH ZANDER INTERNATIONAL SDN BHD

SMITH ZANDER is a professional independent market research company based in Kuala Lumpur, Malaysia, offering market research, industry intelligence and strategy consulting solutions. SMITH ZANDER is involved in the preparation of independent market research reports for capital market exercises, including initial public offerings, reverse takeovers, mergers and acquisitions, and other fund-raising and corporate exercises.

Profile of the signing partner, Dennis Tan Tze Wen

Dennis Tan is the Managing Partner of SMITH ZANDER. Dennis Tan has over 25 years of experience in market research and strategy consulting, including over 20 years in independent market research and due diligence studies for capital markets throughout the Asia Pacific region. Dennis Tan has a Bachelor of Science (major in Computer Science and minor in Business Administration) from Memorial University of Newfoundland, Canada.

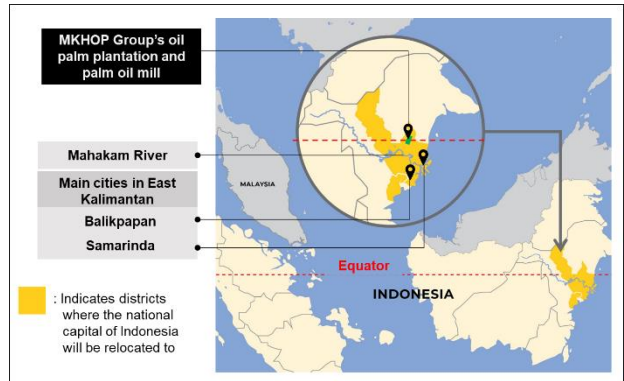
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1 THE OIL PALM INDUSTRY IN INDONESIA

Economic and geographical overview of Indonesia

Indonesia is the largest economy in Southeast Asia with a total Growth Domestic Product (“GDP”) of IDR11.71 quadrillion (RM3.47 trillion)¹, and the world’s fourth most populous nation with a population size of 275.77 million, in 2022.² In 2022, the economy of Indonesia was mainly supported by the manufacturing sector which was the largest contributor to the nation’s GDP at IDR2.40 quadrillion (RM710.40 billion), followed by wholesale and retail trade as well as repair of motor vehicles and motorcycles sector at IDR1.53 quadrillion (RM452.88 billion), and agricultural, forestry and fishing sector at IDR1.44 quadrillion (RM426.24 billion). Within the agricultural, forestry and fishing sector, plantation crops, which include oil palm, was the largest contributor to the sectoral GDP at IDR432.01 trillion (RM127.87 billion).³

Kalimantan is a territory of Indonesia located in Borneo Island. East Kalimantan, one of the five provinces in Kalimantan, has its capital Samarinda, which lies on the banks of the Mahakam River. East Kalimantan has a seaport city named Balikpapan, which is also the financial centre of Kalimantan and will be the main gateway to the new national capital of Indonesia. The economy of East Kalimantan is mainly driven by natural resources such as oil, natural gas, coal and gold. In 2019, Joko Widodo, the President of Indonesia, announced that the national capital of Indonesia will be relocated from Jakarta to East Kalimantan, whereby the new national capital will be located across 2 districts in



Source: SMITH ZANDER

East Kalimantan, namely North Penajam Paser and Kutai Kartanegara, both of which are located close to Samarinda and Balikpapan.

Overview of the oil palm industry in Indonesia

The value chain of the oil palm industry can be categorised into 4 segments, comprising upstream, midstream, downstream processing, and consumer and industrial products manufacturing as follows:

Value chain of the oil palm industry

	Upstream	Midstream	Downstream processing	Consumer and industrial products manufacturing
Activities	<ul style="list-style-type: none"> Seed production Nursery Cultivation Harvesting Palm oil milling PK crushing 	<ul style="list-style-type: none"> Trading Bulking 	<ul style="list-style-type: none"> Refining Fractionation Esterification 	<ul style="list-style-type: none"> Blending Packing Marketing and branding
Products/ output	<ul style="list-style-type: none"> Oil palm seedling Fresh fruit bunches (“FFB”) Crude palm oil (“CPO”) Palm kernel (“PK”) Crude palm kernel oil (“CPKO”) By-products (empty fruit bunch (EFB), decanter cake, mesocarp fibre, PK shell and palm oil mill effluent) 	<ul style="list-style-type: none"> CPO PK CPKO 	<ul style="list-style-type: none"> Refined, bleached and deodorised (“RBD”) palm oil RBD palm kernel oil Palm fatty acid distillate RBD palm olein RBD palm stearin Cocoa butter substitute Fatty acid, alcohols, amines, amides Glycerines Biodiesel 	<ul style="list-style-type: none"> Cooking and salad oils Margarines and spreads Bakery shortening Emulsifiers Confectionery fats Cosmetics Soaps Sanitisers Detergents

Notes:

- The list is not exhaustive
- Indicates the segment that MKHOP Group is involved in and key products sold to its customers.

Source: SMITH ZANDER

¹ Exchange rate for IDR to RM for 2022 is converted based on the average annual exchange rate in 2022, extracted from published information from Bank Negara Malaysia at IDR100 = RM0.0296.

² Sources: World Bank, Badan Pusat Statistik (“BPS”)

³ Source: BPS

8. IMR REPORT (Cont'd)



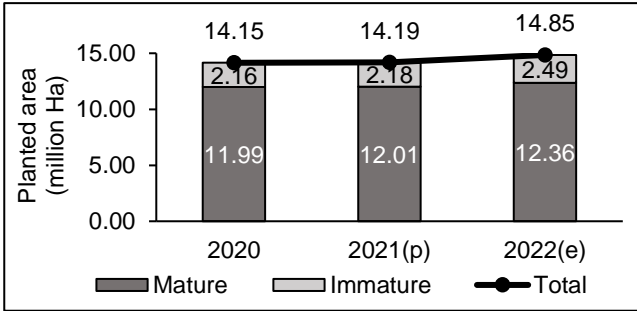
2 INDUSTRY PERFORMANCE, SIZE AND GROWTH

Supply analysis of the oil palm industry in Indonesia

From 2020 to 2022, total mature and immature oil palm planted area in Indonesia rose from 14.15 million hectares (“Ha”) to 14.85 million Ha at a compound annual growth rate (“CAGR”) of 2.44%. Over the same period, immature oil palm planted area in Indonesia increased at a CAGR of 7.37%, higher than mature oil palm planted area at 1.53%.

East Kalimantan, in which MKHOP Group’s plantation estates are located, recorded an increase in total mature and immature oil palm planted area at a CAGR of 3.75%, from 1.31 million Ha in 2020 to 1.41 million Ha in 2022.

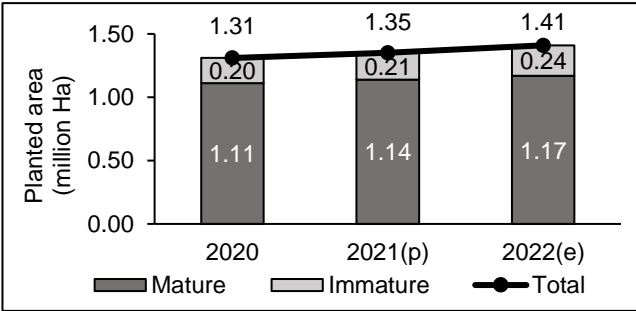
Oil palm planted area (Indonesia), 2020 - 2022(e)



Notes: (p) – preliminary; (e) - estimate

Sources: Ministry of Agriculture Indonesia, SMITH ZANDER

Oil palm planted area (East Kalimantan), 2020 - 2022(e)

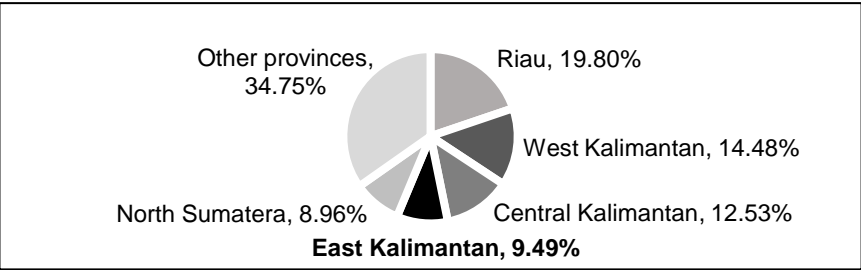


Notes: (p) – preliminary; (e) - estimate

Sources: Ministry of Agriculture Indonesia, SMITH ZANDER

Oil palm plantations in Indonesia are mainly centred in several provinces, namely Riau, West Kalimantan, Central Kalimantan, East Kalimantan and North Sumatera, whereby total mature and immature oil palm planted area in these provinces accounted for 19.80%, 14.48%, 12.53%, 9.49% and 8.96% respectively of the total mature and immature oil palm planted area in Indonesia in 2022.

Contribution of oil palm planted area by province (Indonesia), 2022(e)

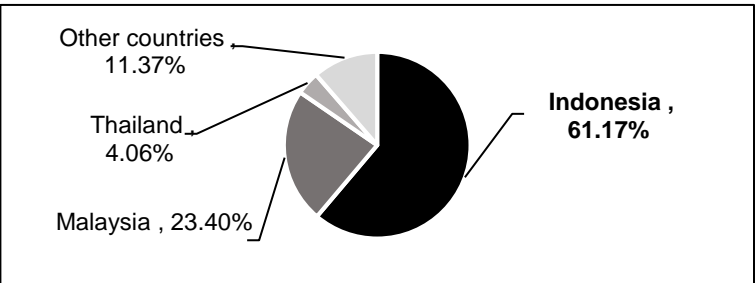


Note: (e) - estimate

Sources: Ministry of Agriculture Indonesia, SMITH ZANDER

Indonesia is the world’s largest producer of CPO. In 2022, Indonesia’s CPO production, which stood at 48.24 million metric tons (“MT”), accounted for 61.17% of global CPO production of 78.86 million MT.

Composition of global CPO producers, 2022



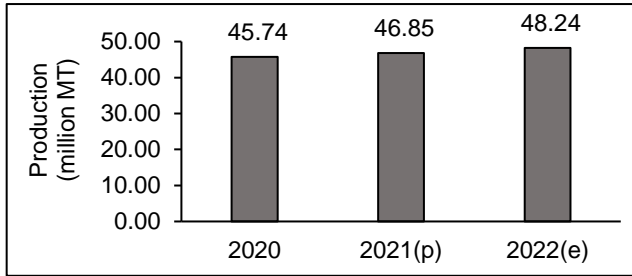
Sources: Ministry of Agriculture Indonesia, SMITH ZANDER

From 2020 to 2022, production of CPO in Indonesia increased from 45.74 million MT to 48.24 million MT at a CAGR of 2.70%. In East Kalimantan, production of CPO increased from 3.72 million MT in 2020 to 3.98 million MT in 2022 at a CAGR of 3.44%.

8. IMR REPORT (Cont'd)



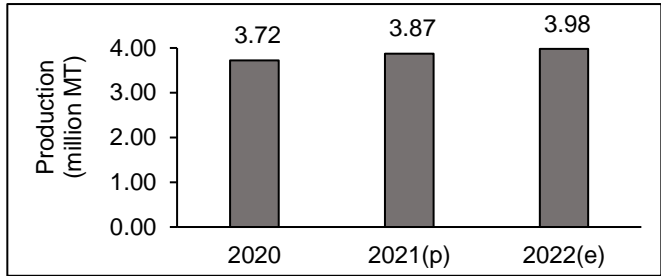
Production of CPO (Indonesia), 2020 - 2022(e)



Notes: (p) – preliminary; (e) - estimate

Source: Ministry of Agriculture Indonesia

Production of CPO (East Kalimantan), 2020 - 2022(e)

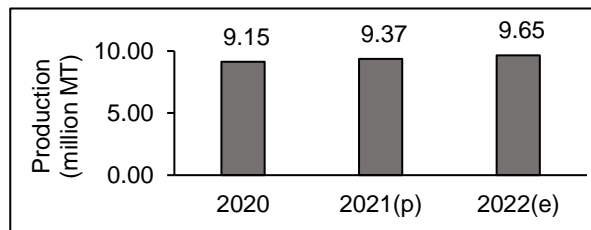


Notes: (p) – preliminary; (e) – estimate

Source: Ministry of Agriculture Indonesia

In line with the increasing production of CPO in Indonesia, from 2020 to 2022, production of CPKO in Indonesia also increased from 9.15 million MT to 9.65 million MT at a CAGR of 2.70%. Production of CPKO in East Kalimantan is not publicly available.

Production of CPKO (Indonesia), 2020 - 2022(e)



Notes:

(p) – preliminary;

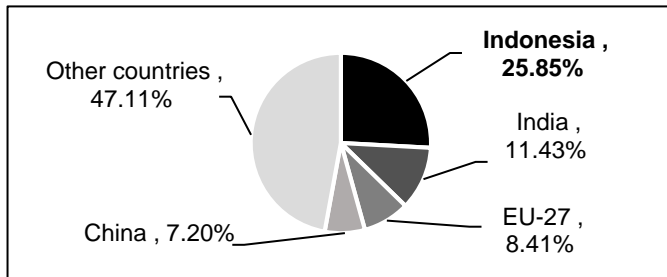
(e) – estimate.

Source: Ministry of Agriculture Indonesia

Demand analysis of the oil palm industry in Indonesia

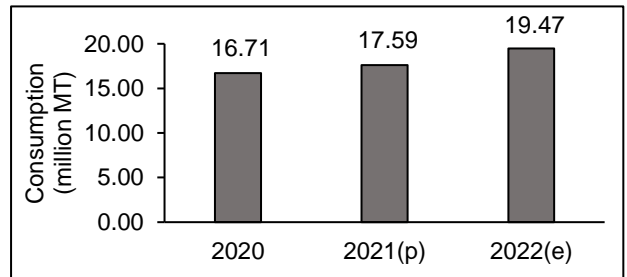
Indonesia is the world’s largest consumer market for CPO. In 2022, CPO consumption in Indonesia amounted to 19.47 million MT, accounting for 25.85% of global CPO consumption of 75.31 million MT. This is followed by India (11.43%), European Union (“EU-27”) (8.41%) and China (7.20%). From 2020 to 2022, consumption of CPO in Indonesia increased from 16.71 million MT to 19.47 million MT at a CAGR of 7.94%.

Composition of global CPO consumer markets, 2022



Sources: Ministry of Agriculture Indonesia, SMITH ZANDER

Consumption of CPO (Indonesia), 2020 - 2022(e)

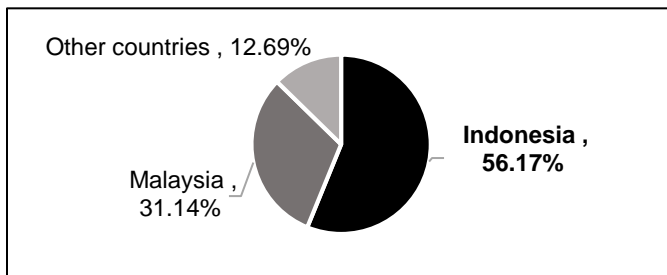


Notes: (p) – preliminary; (e) - estimate

Source: SMITH ZANDER

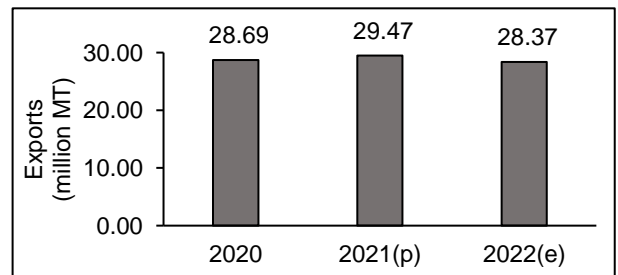
In tandem with its position as the world’s largest producer of CPO, Indonesia is also the world’s largest exporter of CPO, and hence it plays a significant role in supporting the global demand for palm oil. In 2022, Indonesia’s CPO exports which stood at 28.37 million MT, accounted for 56.17% of global CPO exports of 50.51 million MT.

Composition of global CPO exports, 2022



Sources: Ministry of Agriculture Indonesia, SMITH ZANDER

Exports of CPO (Indonesia), 2020 - 2022(e)



Notes: (p) – preliminary; (e) - estimate

Source: SMITH ZANDER

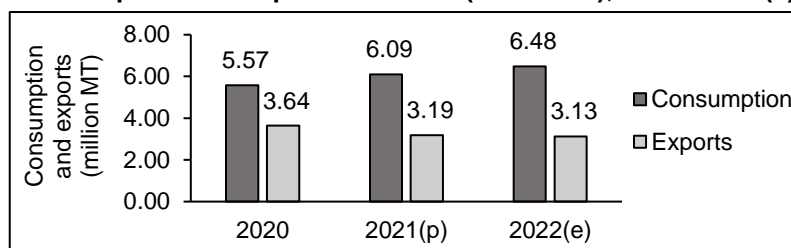
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However, from 2020 to 2022, Indonesia's exports of CPO decreased from 28.69 million MT to 28.37 million MT at a negative CAGR of 0.56%. This was mainly due to the export ban on CPO, RBD palm oil, RBD palm olein and used cooking oil imposed by the Government of Indonesia from 28 April 2022 to 23 May 2022 in an effort to curb the rise in domestic cooking oil prices.

As Indonesia is the largest exporter of palm oil globally, the export ban adversely impacted global CPO supply. Conversely, Indonesia experienced a domestic oversupply of CPO during the same period, which successfully stabilised domestic cooking oil prices and subsequently drove the consumption of CPO in Indonesia. Following the upliftment of the export ban, the Government of Indonesia reinstated the domestic market obligation in which CPO exporters are required to fulfil a local CPO sales quota in order to export CPO, which also contributed to the overall decrease in CPO exports in 2022.

In line with the increase in consumption of CPO, consumption of CPKO in Indonesia also increased from 5.57 million MT in 2020 to 6.48 million MT in 2022 at a CAGR of 7.86%.

However, over the same period, exports of CPKO decreased from 3.64 million MT to 3.13 million MT at a negative CAGR of 7.27%, which is in line with the decline in Indonesia's CPO exports over the same period.

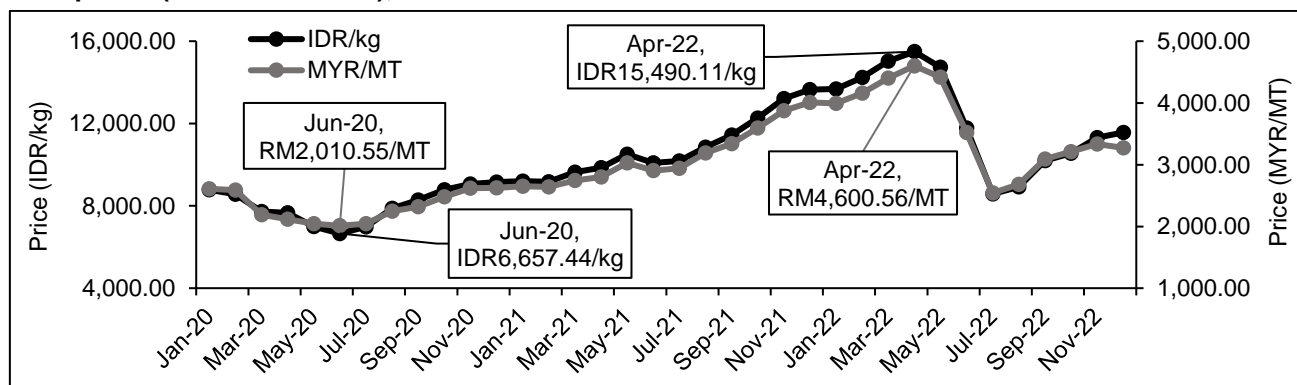
Consumption and exports of CPKO (Indonesia), 2020 - 2022(e)

Notes: (p) – preliminary; (e) - estimate

Source: SMITH ZANDER

Price trend analysis of CPO and palm kernel ("PK")

Between 2020 and 2022, prices of CPO in East Kalimantan fluctuated, with the lowest price at IDR6,657.44/kilograms ("kg") (RM2,010.55/MT)⁴ in June 2020 and the highest price at IDR15,490.11/kg (RM4,600.56/MT)⁵ in April 2022.

CPO prices (East Kalimantan), 2020 - 2022

Source: Dinas Perkebunan Provinsi Kalimantan Timur (Plantation Office of East Kalimantan)

Local prices of CPO in East Kalimantan mirror the global prices of CPO, which are influenced by supply and demand conditions of CPO in the global market. The trend of global CPO prices between 2020 and 2022 is described as follows:

- Between January 2020 and June 2020, CPO prices were at a decreasing trend due to dampened demand for CPO as a result of the COVID-19 pandemic and the imposition of movement restrictions in a bid to curb the spread of COVID-19. Subsequently, CPO consumption had reduced due to lower import demand from India and China, which are the two largest import countries for CPO. Coupled with dry weather conditions and labour shortages, global prices of CPO decreased, which weighed down the local CPO prices in East

⁴ Exchange rate for IDR to RM for June 2020 is converted based on the average exchange rate in June 2020, extracted from published information from Bank Negara Malaysia at IDR100 = RM0.0302.

⁵ Exchange rate for IDR to RM for April 2022 is converted based on the average exchange rate in April 2022, extracted from published information from Bank Negara Malaysia at IDR100 = RM0.0297.

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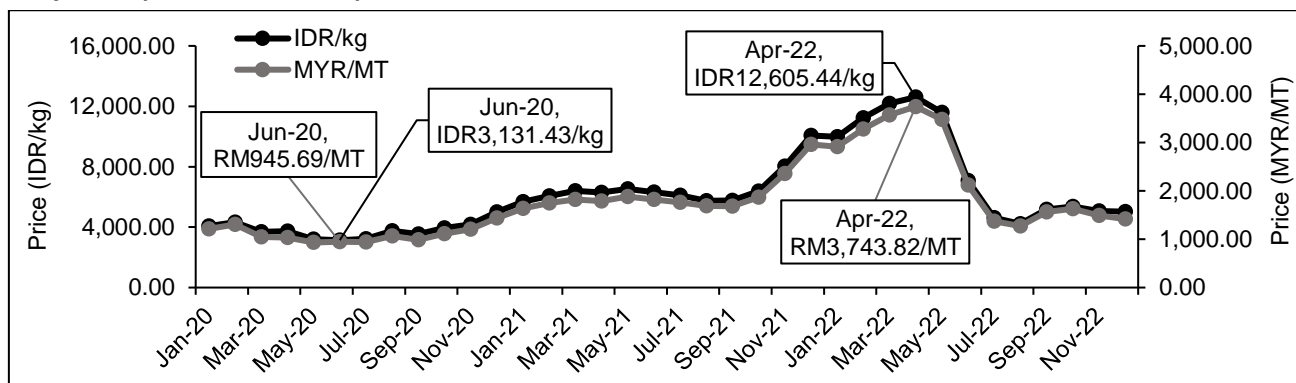
Kalimantan to its lowest during the period of 2020 to 2022, at IDR6,657.44/kg (RM2,010.55/MT) in June 2020.

- Between July 2020 and April 2022, CPO prices were at an increasing trend mainly as a result of the continuous low CPO supply due to the earlier imposition of movement restrictions which had restricted or placed limitations on CPO production. Furthermore, shortages in foreign labour and temporary closure of operations of oil palm plantations particularly in Malaysia had further suppressed CPO production. In addition, heavy rainfall in early 2021 had disrupted oil palm harvesting activities as well as logistics on oil palm plantations, which led to lower FFB yield and subsequently lower CPO supply. The increase in CPO prices beginning 2021 was also contributed by the increasing demand for CPO due to the easing of movement restrictions globally, particularly in Europe and North America.

In addition, the outbreak of the Russia-Ukraine conflict in February 2022 had disrupted the supply of sunflower oil from Ukraine which subsequently drove demand for CPO as a substitute, leading to the rise in global CPO prices. As CIF Rotterdam prices continued to rise due to the Russia-Ukraine conflict, local CPO prices in East Kalimantan reached its highest since 2020 at IDR15,490.11/kg (RM4,600.56/MT) in April 2022. Consequently, the Government of Indonesia had imposed a palm oil export ban from 28 April 2022 to 23 May 2022 in a bid to lower domestic cooking oil prices, whereby the ban on exports was intended to increase the supply of domestic palm oil, which would subsequently lead to an increase in the supply of domestic cooking oil, resulting in a decrease in domestic cooking oil prices. Due to its palm oil export ban, Indonesia's exports of CPO and global CPO imports declined, which further drove global CPO prices as well as led to the drop in global CPO consumption.

- From May 2022 to December 2022, in particular from May 2022 to July 2022, CPO prices were at a decreasing trend, which was mainly due to excessive stock of CPO in Indonesia accumulated during the export ban and increase in CPO exports by Indonesia.

Between 2020 and 2022, prices of PK in East Kalimantan fluctuated, with the lowest price at IDR3,131.43/kg (RM945.69/MT)⁶ in June 2020 and the highest price at IDR12,605.44/kg (RM3,743.82/MT)⁷ in April 2022.

PK prices (East Kalimantan), 2020 – 2022

Source: Dinas Perkebunan Provinsi Kalimantan Timur (Plantation Office of East Kalimantan)

Generally, PK prices have similar trends with CPO prices as the production of PK is closely tied to the production of CPO given that PK is a by-product of CPO. As such, the factors which affect the production of CPO also applies to the production of PK. Local prices of PK in East Kalimantan mirror the global prices of PK, which are influenced by supply and demand conditions of PK in the global market.

⁶ Exchange rate for IDR to RM for June 2020 is converted based on the average exchange rate in June 2020, extracted from published information from Bank Negara Malaysia at IDR100 = RM0.0302.

⁷ Exchange rate for IDR to RM for April 2022 is converted based on the average exchange rate in April 2022, extracted from published information from Bank Negara Malaysia at IDR100 = RM0.0297.

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3 KEY INDUSTRY DRIVERS, RISKS AND CHALLENGES

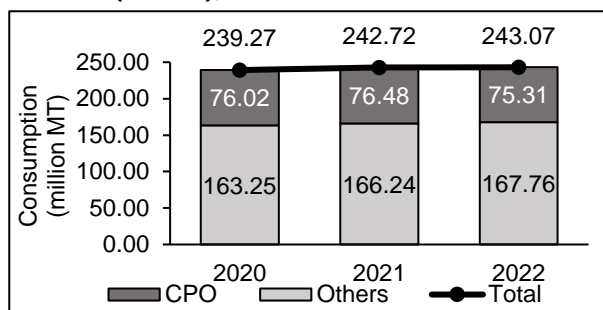
Key Industry Drivers

► **Growing demand for food drives the demand for edible oils and fats which subsequently drives the growth of the oil palm industry**

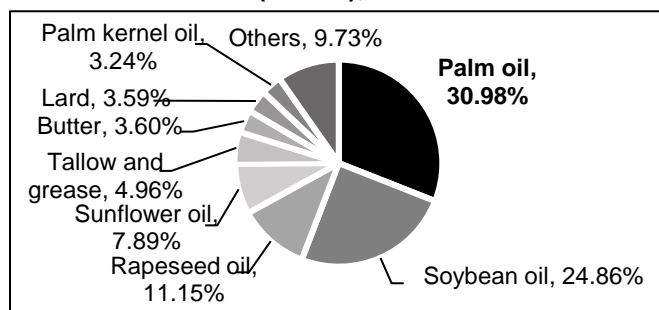
The demand for edible oils and fats such as palm oil is directly driven by the growing demand for food as a result of growing global population. According to The World Bank, world population in 2022 stood at approximately 7.95 billion and is expected to increase by 21.64% to 9.67 billion in 2050. Higher population growth rates in developing countries pressure the agricultural industry to produce sufficient food and fibre to feed and clothe the increasing world population.

In line with economic growth post COVID-19 pandemic, world urban population as a percentage of total population is expected to increase from 56.89% in 2021 to 67.96% in 2050⁸ as individuals migrate from rural to urban areas to seek higher standards of living, which increases consumer spending power and thus drives the demand for food.

Consumption of CPO and other major edible oils and fats (Global), 2020 - 2022



Comparative consumption of CPO and other major edible oils and fats (Global), 2022



Note:

- Others comprise soybean oil, rapeseed oil, sunflower oil, cotton oil, corn oil, groundnut oil, olive oil, palm kernel oil, coconut oil, fish oil, sesame oil, castor oil, linseed oil, butter, lard and tallow and grease.

Source: SMITH ZANDER

Edible oils and fats are primarily utilised for food applications, and largely in the manufacturing of cooking and salad oils, margarines and spreads, food ingredients such as emulsifiers and shortenings, and substitutes for hard butter and cocoa butter.

The total global consumption of major edible oils and fats increased from 239.27 million MT in 2020 to 243.07 million MT in 2022 at a CAGR of 0.79%. Palm oil is the highest consumed edible oil, outstripping the consumption of other major edible oils and fats. In 2022, CPO accounted for 30.98% of total global consumption of major edible oils and fats. Palm kernel oil was the eighth most consumed edible oil globally in 2022, accounting for 3.24% of total global edible oils and fats consumption in 2022.

► **Wide range of applications of palm oil and its derivatives drives the demand for palm oil**

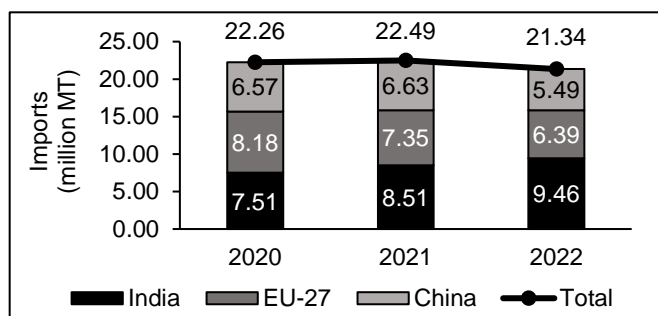
The versatility and fat content in palm oil which extends shelf life, shortens cooking time, and contributes to texture as well as flavor makes it a popular base ingredient that is utilised in a wide range of food and non-food applications. Palm oil can be used for a multitude of food applications, including the production of cooking oil, margarine, bakery shortening and confectionery fats; as well as non-food applications including the manufacturing of personal and hygiene care products such as soaps, cosmetics, sanitisers and detergents, which are produced using ingredients from oleochemical products derived from palm oil. These food and non-food products are commonly and widely used in consumers' daily lives.

Palm oil is also used in the production of polyols, which is used to make polyurethane, a plastic material with multiple applications in various industries such as building and construction, automotive, furniture and electrical and electronics.

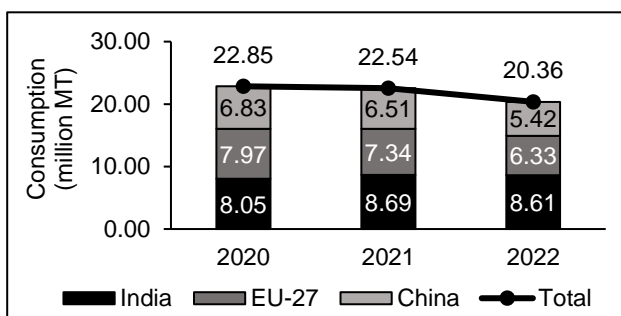
⁸ Source: The World Bank

8. IMR REPORT (Cont'd)**SMITH ZANDER****► Demand from India, EU-27 and China as three of the largest CPO import/consumer markets**

The demand for CPO from India, EU-27 and China, in terms of imports and consumption, are key factors in sustaining the oil palm industry. In 2022, India was the largest importer of CPO globally with a market share of 19.13% to global CPO imports, followed by EU-27 (12.92%) and China (11.10%). In the same year, after Indonesia, which was the largest consumer market for CPO with a market share of 25.85% to global CPO consumption, India was the second largest consumer market for CPO with a market share 11.43%, followed by EU-27 (8.41%) and China (7.20%).

Imports of CPO (India, EU-27 and China), 2020 - 2022

Source: SMITH ZANDER

Consumption of CPO (India, EU-27 and China), 2020 - 2022

Source: SMITH ZANDER

From 2020 to 2022, total imports and total consumption of CPO in India, EU-27 and China decreased at a CAGR of -2.09% and -5.61% respectively. The overall decrease in CPO imports and consumption in these three markets was weighed down by the decrease in EU-27 and China, which was mainly due to lower CPO supply and the rise in CPO prices resulting from economic factors such as foreign labour shortages due to temporary closure of operations of oil palm plantations particularly in Malaysia following the outbreak of COVID-19, as well as geopolitical factors such as the Russia-Ukraine conflict that escalated in February 2022 which disrupted the supply of sunflower oil from Ukraine and subsequently drove the demand for CPO as a substitute by importers, as well as Indonesia's export ban on palm oil from 28 April 2022 to 23 May 2022.

Moving forward, as global economic and geopolitical conditions gradually return to normal and as CPO prices decrease, the consumption and imports of CPO in EU-27 and China are expected to gradually recover while the growth in consumption and imports of CPO in India is expected to continue to be driven by consumption in the food sector and oleochemical applications.

► Strong government support to strengthen the oil palm industry

In 2011, the Government of Indonesia introduced the Indonesian Sustainable Palm Oil ("ISPO") standard, which is based on Indonesian laws and regulations, to enhance the competitiveness and sustainability of the Indonesian palm oil industry. Palm oil producers that hold the ISPO certification are required to conform to ISPO principles with regards to licensing and plantation management, technical guidelines for the processing and cultivation of palm oil and environmental management, amongst others. The ISPO certification is mandatory for all Indonesian palm oil producers, from large scale producers to independent smallholders, to strengthen Indonesia's position in the global palm oil market as a palm oil producer and exporter.

In 2015, the Government of Indonesia established the Badan Pengelola Dana Perkebunan Kelapa Sawit ("BPDPKS") which is a fund management agency under the Ministry of Finance of Indonesia to manage funds allocated for the development of the Indonesian palm oil industry. The BPDPKS provides funding for replanting programs for smallholders through the PSR to improve palm oil productivity, provides biodiesel incentive to encourage the use of biodiesel by the public and research and development in the palm oil sector, amongst others. During the period of 2016 to 2020, the BPDPKS distributed a total replanting fund of IDR4.50 trillion

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(RM1.35 billion)⁹. In 2021, the BPDPKS allocated IDR5.57 trillion (RM1.62 billion)¹⁰ for the year to support the PSR which will cover the replanting of 0.18 million Ha of oil palm trees.¹¹

Key Industry Risks and Challenges**► Dependent on weather conditions and other factors affecting crop productivity and yield**

Productivity levels may be influenced by various factors such as weather conditions, pest attacks and crop diseases, labour availability, efficient management of plantations by sourcing and utilising quality planting materials, ensuring sufficient land area for oil palm crops, maintaining plantations by weeding, pruning, soil fertilisation and harvesting during optimum seasons, age profile of the oil palm trees as well as utilising efficient production techniques in the process of oil extraction.

The annual yield of mature crops does not remain constant and varies annually arising from external factors such as soil fertility and climate as well as biological factors such as frond production, floral abortion, sex ratio, bunch survival and average bunch weight which, when affected, can possibly lead to tree stress, thus adversely impacting FFB yield. Tree stress is a biological production pattern where crops experience lower yield performance after a period of high yields. Crops that are in the latter stages of maturity are more likely to face prolonged biological stress after a period of bumper harvest.

► Fluctuations in edible oils prices which may affect demand for palm oil

As with any other commodity, global CPO prices have been seen to fluctuate during periods of economic growth and contractions. Global CPO prices have also been seen to be closely tied to the market price of crude oil, due to their use as feedstock in the production of biodiesel and hence, serving as a substitute for crude oil.

Other factors that have significant impact on the price movement of CPO include supply and demand forces, demand from food and oleochemicals industries, weather conditions and performance of other edible oils and fats. If both supply and demand are strong but market prices remain high, consumption levels are likely to be affected, thereby restraining the growth of the industry.

► Product substitution with other edible oils and fats

Edible oils and fats are typically versatile in terms of their purposes such as for cooking, baking and salad dressings. Most edible oils and fats can be used for similar purposes and thus, making them substitutable with one another. The substitutability of palm oil with other edible oils and fats, and vice versa, is mainly driven by global CPO prices as well as prices of other edible oils and fats. Global CPO prices and prices of other edible oils and fats correlate with factors such as weather conditions, labour availability, changes in government policies and geopolitical conflicts, which affect the supply and demand of palm oil and other edible oils and fats. Any changes to these factors may affect the substitutability of palm oil with other edible oils and fats and subsequently affect the growth of the oil palm industry.

► Environmental concerns surrounding the oil palm industry

Typically, vast areas of tropical rainforests are cleared out in order to make way for oil palm plantations. This has resulted in concerns in the rise of deforestation, biodiversity destruction and greenhouse gas emissions in countries such as Indonesia and Malaysia which are the two largest palm oil producers globally.

On 1 July 2021, through the Renewable Energy Directive II, the EU enforced a regulation on its member states in which palm oil-based biofuel is no longer considered as a renewable energy in its renewable energy targets in order to phase out the use of palm oil-based biofuel by 2030. In the long run, the EU's phasing out of use of palm oil-based biofuel may have adverse impact on the demand for palm oil from the EU. Further, there is no assurance that other countries may not adopt similar policies that phase out the use of palm oil-based biofuel due to environmental concerns, which may adversely impact the global demand for palm oil and thus affect the growth of the oil palm industry.

⁹ Exchange rate for IDR to RM for 2016 to 2020 is converted based on the average annual exchange rate from 1 January 2016 to 31 December 2020, extracted from published information from Bank Negara Malaysia at IDR100 = RM0.0300.

¹⁰ Exchange rate for IDR to RM for 2021 is converted based on the average annual exchange rate in 2021, extracted from published information from Bank Negara Malaysia at IDR100 = RM0.0290.

¹¹ Source: BPDPKS

8. IMR REPORT (Cont'd)

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4 COMPETITIVE OVERVIEW

The oil palm industry in Indonesia is a vibrant and thriving industry owing to its strategic geographical location along the tropical belt of the equator. The oil palm industry in Indonesia, in particular the upstream segment of the oil palm industry, comprises many industry players which include private estates, small-holders and government estates, whereby private estates accounted for 54.62% of total oil palm planted area, followed by small-holders (41.48%) and government estates (3.90%).

The barriers to entry in the oil palm industry is high as it requires high initial capital to establish a sizable plantation estate and palm oil milling facilities, which includes acquisition of agricultural land, construction of palm oil mill(s), purchasing of machinery and storage facility(s), as well as operating expenses and working capital for on-going cultivation and milling activities.

Closest competitors to MKHOP Group

MKHOP Group owns two plantation estates with a total planted area of 17,008.80 Ha in East Kalimantan. The basis for selection of the closest competitors to MKHOP Group is as follows:

- public listed companies involved in the upstream segment of the oil palm industry in Indonesia, in particular the cultivation of oil palm and production of CPO and PK in Indonesia, including foreign listed companies based outside Indonesia but with oil palm plantations in Indonesia; and
- companies with total planted area between 10,000 Ha and 100,000 Ha in Indonesia.

Companies with total planted area which exceed 100,000 Ha are excluded as these companies are not deemed to be the closest competitors to MKHOP Group as their scale of operations are significantly larger. Further, some of these companies are vertically integrated companies with both upstream (i.e. cultivation of oil palm and production of CPO and PK/CPKO) and downstream (i.e. palm oil refineries and/or manufacturing) operations. Some examples of these companies with total planted areas exceeding 100,000 Ha are public listed companies such as PT Astra Agro Lestari Tbk (287,044 Ha) and PT Salim Ivomas Pratama Tbk (250,615 Ha) which are headquartered in Indonesia; Kuala Lumpur Kepong Berhad (289,044 Ha), Sime Darby Plantation Berhad (579,708 Ha), IOI Corporation Berhad (176,980 Ha) and Genting Plantations Berhad (159,318 Ha) which are headquartered in Malaysia and have oil palm plantations in Indonesia; as well as Wilmar International Limited (238,003 Ha)¹², Golden Agri-Resources Ltd (536,013 Ha) and First Resources Limited (212,208 Ha) which are headquartered in Singapore and have oil palm plantations in Indonesia. The identified key industry players include major industry players in Indonesia that were identified by SMITH ZANDER based on sources available, such as the internet, published documents and industry directories. However, there may be companies that have no online and/or published media presence, or are operating with minimal public advertisement, and hence SMITH ZANDER is unable to state conclusively that the list of industry players is exhaustive.

Private companies are not included as key industry players as audited financial statements for private companies in Indonesia are not publicly available.

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¹² Includes sugar cane plantations.

8. IMR REPORT (Cont'd)

Profiles of key industry players

Industry player	Country of incorporation	Stock exchange in which the industry player is listed	Location of plantations	Latest available financial year	Total planted area (Ha) ^(a)	Mature planted area (%)	Immature planted area (%)	FFB yield (MT/Ha)	CPO production volume (MT)	PK production volume (MT)	Oil extraction rate (OER) (%)	Kernel extraction rate (KER) (%)	Total revenue ^(b)	Total revenue (RM)	Gross profit margin (%)	Profit after tax margin (%)	Price-to-earnings (P/E) ratio ^(c)	Market capitalisation (RM) ^(c)
Anglo-Eastern Plantations Plc	United Kingdom	London Stock Exchange	Indonesia (Sumatra (North Sumatra, Bengkulu, Riau, Bangka), and Kalimantan (Central Kalimantan) and Malaysia)	31 Dec 2021	67,239 ^(d)	87.65 ^(d)	12.35 ^(d)	19.80 ^(e)	473,200	114,000	20.50	N/A ^(f)	USD433.42 million ^(d)	1.80 billion ^{(d),(g)}	31.70 ^(d)	25.69 ^(d)	4.87	1.86 billion
PT Austindo Nusantara Jaya Tbk	Indonesia	Indonesia Stock Exchange	Indonesia (Kalimantan (West Kalimantan), Sumatra (North Sumatra and South Sumatra) and Papua (West Papua))	31 Dec 2021	54,630	80.47	19.53	20.40	262,683	51,531	20.60	4.40	USD266.79 million	1.11 billion ^(g)	37.76	14.87	23.14	708.83 million
PT Teladan Prima Agro Tbk	Indonesia	Indonesia Stock Exchange	Indonesia (Kalimantan (East Kalimantan))	31 Dec 2021	60,500	99.00	1.00	N/A ^(f)	277,741	42,915	23.00	3.60	IDR2.94 trillion	882.00 million ^(h)	40.03	18.08	10.62	1.88 billion
R.E.A. Holdings plc	United Kingdom	London Stock Exchange	Indonesia (Kalimantan (East Kalimantan))	31 Dec 2021	36,016	99.03	0.97	20.70	209,006	44,735	22.40	4.80	USD191.91 million	795.54 million ^(g)	32.39	4.83	2.96	249.66 million
Kencana Agri Limited	Singapore	Singapore Stock Exchange	Indonesia (Sumatra (South Sumatra), Kalimantan (East Kalimantan and South Kalimantan) and Sulawesi (Central Sulawesi and North Sulawesi))	31 Dec 2021	68,150	90.42	9.58	N/A ^(f)	149,646	N/A ^(f)	21.10	N/A ^(f)	USD128.45 million	532.48 million ^(g)	32.05	13.08	13.93	163.15 million
NPC Resources Berhad	Malaysia	Bursa Malaysia	Indonesia (Kalimantan (East Kalimantan) and Malaysia)	31 Dec 2022	23,838	77.00	23.00	11.59	82,326	16,147	20.51	4.02	RM413.29 million	413.29 million	9.25	0.27	- ⁽ⁱ⁾	204.71 million
MKHOP Group	Malaysia	- (to be listed on Bursa Malaysia)	Indonesia (Kalimantan (East Kalimantan))	30 Sept 2021 / 30 Sept 2022	17,174.54 / 17,008.80	100.00	-	26.70 / 23.30	89,438 / 74,942	17,963 / 16,245	19.40 / 18.50	3.90 / 4.00	RM306.61 million / RM315.82 million	306.61 million / 315.82 million	45.80 / 41.10	25.30 / 19.00	[•] ⁽ⁱ⁾	[•] million
PT Jaya Agra Wattie Tbk	Indonesia	Indonesia Stock Exchange	Indonesia (Kalimantan (South Kalimantan))	31 Dec 2021	27,919	N/A ^(f)	N/A ^(f)	5.50	38,996	6,866	20.53	3.62	IDR843.20 billion	252.96 million ^(h)	9.75	-21.14	- ⁽ⁱ⁾	88.39 million
PT Gozco Plantations Tbk	Indonesia	Indonesia Stock Exchange	Indonesia (Sumatra (South Sumatra) and Kalimantan (Central Kalimantan))	31 Dec 2021	12,915	97.71	2.29	14.52	50,833	10,594	22.25	4.64	IDR707.10 billion	212.13 million ^(h)	9.55	2.02	7.63	171.50 million
Global Palm Resources Holdings Limited	Singapore	Singapore Stock Exchange	Indonesia (Kalimantan (West Kalimantan and East Kalimantan) and Sulawesi (Central Sulawesi))	31 Dec 2021	16,077	88.19	11.81	14.60	35,320	6,047	21.80	3.70	IDR535.46 billion	160.64 million ^(h)	33.78	14.57	9.32	204.19 million
PT Andira Agro Tbk	Indonesia	Indonesia Stock Exchange	Indonesia (Sumatra (South Sumatra))	31 Dec 2021	10,006	N/A ^(f)	N/A ^(f)	N/A ^(f)	27,000	7.07	N/A ^(f)	N/A ^(f)	IDR346.36 billion	103.91 million ^(h)	11.02	-0.90	- ⁽ⁱ⁾	142.15 million

8. IMR REPORT (Cont'd)**SMITH ZANDER**

Notes:

- Latest available as at 7 March 2023
- (a) May include planted area under the Plasma Programme. In Indonesia, the Government of Indonesia requires oil palm plantation companies to develop and manage new plantations under the Plasma Programme for local cooperatives which comprise local farmers. Under the Plasma Programme, oil palm plantation companies are required to provide certain area of plantation land for plantation development and management for the local cooperatives, as well as assist local cooperatives in the development and preparation of plantation land, supplying oil palm seedlings to local cooperatives as well as training and educating the farmers under the local cooperatives in oil palm cultivation and management. Oil palm plantation companies are obliged to purchase FFB harvested by local cooperatives under their Plasma Programme at prices determined by the Government of Indonesia which fluctuate in line with the prevailing CPO prices.
- (b) May include revenue derived from other businesses that are not related to the cultivation of oil palm and production of CPO and PK in Indonesia.
- (c) Extracted from Bloomberg as at 1 May 2023.
- (d) This information excludes the company's entire operations in South Sumatra which was classified as held for sale in the consolidated statement of financial position for the FYE 31 December 2021.
- (e) Comprises FFB yield for plantations in Indonesia only. The FFB yield that includes the plantation in Malaysia is not available in the latest available annual report.
- (f) N/A – Not available.
- (g) Revenue from USD to RM for the FYE 31 December 2021 was converted based on the average annual exchange rate in 2021, extracted from published information from Bank Negara Malaysia at USD1.00 = RM4.1454.
- (h) Revenue from IDR to RM for the financial year ended ("FYE") 31 December 2021 was converted based on the average annual exchange rate in 2021, extracted from published information from Bank Negara Malaysia at IDR100 = RM0.0290.
- (i) This industry player recorded a negative earnings per share for the latest available financial year.
- (j) Based on MKHOP Group's earnings per share of approximately 5.88 sen for FYE 2022, calculated based on MKHOP Group's profit after tax of RM60.10 million for FYE 2022 and enlarged share capital of 1,023,590,845 shares upon listing.

Sources: MKHOP Group, various companies' annual reports and websites, Bloomberg, SMITH ZANDER

Market Share

The market share of MKHOP Group in the oil palm industry in Indonesia and East Kalimantan is represented by its share of total planted area and CPO production in Indonesia and East Kalimantan respectively. MKHOP Group captured a market share based on total planted area of 0.11% in Indonesia and 1.21% in East Kalimantan; and a market share based on CPO production of 0.16% in Indonesia and 1.88% in East Kalimantan.

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