

# GROUP BUSINESS REVIEW – PLANTATION



## WHO WE ARE & WHAT WE DO

Plantation is a core business of IOI, which is engaged in the cultivation of oil palm and processing of palm oil with operations in seed breeding, cultivation and crop oil extraction. Today, we have 98 estates, 15 palm oil mills, four research and development (“R&D”) centres and one biotechnology centre across Malaysia and Indonesia. Our harvested fresh fruit bunches (“FFB”) are processed by our own 15 milling facilities with a total installed capacity of 980 metric tonne (“MT”) per hour of FFB.



Our current total planted area (including subsidiary companies) stands at 176,925 hectares (“ha”) (FY2022: 176,980 ha) and our associate companies stand at about 135,000 ha (as at 30 June 2023). Our total planted area is 98% oil palm and 84% is classified as mature. The weighted average palm age is 14 years. IOI is diversifying into cash crops and intercropping to optimise the revenue of operating units that are undergoing replanting programmes. We have planted a total of 303 ha of bananas, 47 ha of pineapples and 28 ha of durian as of FY2023. We are expanding our cash crops and intercropping business, and targeting to plant 400 ha of bananas, 50 ha of pineapples and 59 ha of durians by next year. In addition, we have planted a total of 1,471 ha of coconuts and target to plant 1,807 ha by next year. We have also established a seed garden to ensure we produce sufficient planting materials by capturing existing crop diversity as well as developing new and improved materials for the future expansion of the Group.



As of FY2023, our Indonesian plantations have been granted *Hak Guna Usaha* (“HGU”) or Right to Cultivate land rights by the Indonesian government for a total ha of 32,573 for 35 years including plasma.





IOI emphasises heavily on Environmental, Social and Governance (“ESG”), a crucial element for businesses in sustainability development, and has made marked improvements in several ESG ratings and assessments. IOI won the Gold Award under the Plantation Sector (Equity Awards category) at The Edge Malaysia ESG Awards 2022, and was recognised as the Company of the Year (Best in Green, Education and Social Initiatives) under the Conglomerate – Plantation category at the Sustainability and CSR Malaysia Awards 2023 on 26 July 2023. The award was given in recognition of our aspiration to drive positive socio-economic development, biodiversity and wildlife protection, as well as our commitment to share prosperity with the community through our corporate social responsibility (“CSR”) and philanthropic programmes.

## KEY FOCUS AREAS

With a strategy on “Driving Innovation in Enhancing Yields and Cost Efficiency,” we are committed to the following key focus areas to enable us to strive for sustainable business growth.

-  Innovating to produce high-yielding planting materials
-  Reduce dependency on manual workers via mechanisation, increase productivity and operational efficiency

-  Digitalisation and automation of business processes
-  Diversifying crops and exploring other profitable crops

 <p><b>Top 3 Largest Companies* in Plantation Sector</b></p> <p>* Listed on Bursa Malaysia</p>	 <p><b>Total Planted Area 176,925 Ha*</b></p> <p>* Excludes area owned by associate companies</p>	 <p><b>Total Oil Palm Estates 98*</b></p> <p>* Located in Malaysia and Indonesia</p>	 <p><b>173,060 Ha &amp; 14 Mills</b></p> <p><b>RSPO*-Certified in Malaysian Operations</b></p> <p>* Roundtable on Sustainable Palm Oil</p>
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### KEY BUSINESS HIGHLIGHTS

The total FFB production for the Group is 2.69 million MT in FY2023 as compared to 2.73 million MT in FY2022. The FFB yield recorded in FY2023 is 18.66 MT per ha as compared to 19.34 MT per ha in the previous year. The lower FFB productivity and FFB yield are primarily impacted by the labour shortage particularly the lack of skilled harvesters as more workers requested to repatriate to their home country that led to high harvesting intervals in addition to the heavy rainfall and floods in the Sabah Region. The labour shortage also caused a delay in our fertilising, milling and transportation activities. As a result, our crude palm oil (“CPO”) production output was affected which led to lower oil yields.

In view of these challenges, the Mechanisation Department has expanded our estate mechanisation projects and implemented various mechanisation systems to assist and speed up the FFB evacuation. As a result, 96% of suitable estates with 80% of potential hectareage have been converted to mechanised mainline FFB evacuation system especially in harvesting operations. Furthermore, we have implemented various motorised equipment that includes motorised palm cutters, motorised power barrows, motorised power crawlers, mechanical carts, mini tractor grabbers, mechanical weed sprayers and mechanical fertiliser spreaders to increase productivity at the estates and to reduce dependency on manual workers. We have also reorganised our work teams and conducted trainings on mechanisation management and strategy on maintenance and operation for efficiency.

The low FFB yield in FY2023 is also caused by a decrease of approximately 8,319 ha of old palms due for replanting, whilst 7,804 ha of young palms are brought into maturity in FY2023. Replanting remains a priority for the Group and we have replanted about 39,597 ha since FY2019 to improve the age profile. We are strengthening our replanting programme through our elite high-yielding clonal palms and superior third-generation hybrid palm seedlings to produce

higher yields. We are also aggressively expanding our mechanisation and digitalisation efforts to optimise workforce and land usage, and adopting best agricultural practices to enhance our oil palm yields.

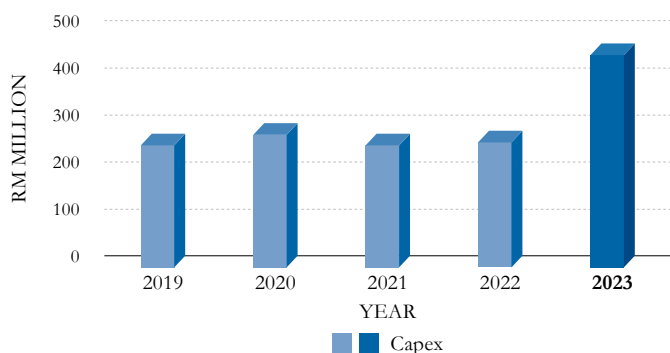
### FINANCIAL HIGHLIGHTS

As of 30 June 2023, the Group’s plantation segment’s revenue decreased by 20% from RM3.33 billion in FY2022 to RM2.68 billion in FY2023. This year-on-year deterioration was contributed by lower CPO and palm kernel (“PK”) prices. The CPO price traded at an average of RM3,924 per MT in the first half of 2023, down from RM3,954 per MT in the second half of 2022. Similarly, PK price stood at an average of RM2,021 per MT, from RM2,243 per MT. This is primarily attributed to the expected seasonal increase in palm fruits production as well as the larger than expected soybean harvest. Other factors include the persistent bearish trend in Black Sea sunflower oil prices, which has triggered a sell-off in related vegetable oils, a slowdown of palm oil exports to China and Indonesia’s palm oil export curbs. This yearly deterioration is also reflected in the decrease in our Group’s average CPO and PK prices. The average CPO price for FY2023 was lower by RM570 per MT (FY2023: RM4,118 per MT as compared with FY2022: RM4,688 per MT) and the average PK price was also lower by RM1,360 per MT (FY2023: RM2,233 per MT as compared with FY2022: RM3,593 per MT).

In a nutshell, the plantation profit has reduced by 45% to RM1,151.3 million in FY2023 as compared with RM2,084.2 million in FY2022 due to lower CPO and PK prices, coupled with higher estate cost that was attributed to the soaring costs of fertilisers, chemicals and diesel as well as higher wages and welfare cost. The plantation segment spent a total of RM444.5 million in capital expenditure (“Capex”) in FY2023 as compared with RM282.2 million in FY2022. The investment consisted of primarily funding in replanting (East Malaysia), plant and machinery, and plantation development infrastructure.

# GROUP BUSINESS REVIEW – PLANTATION

## CAPEX



## REVENUE AND PROFIT BEFORE INTEREST AND TAX (“PBIT”)

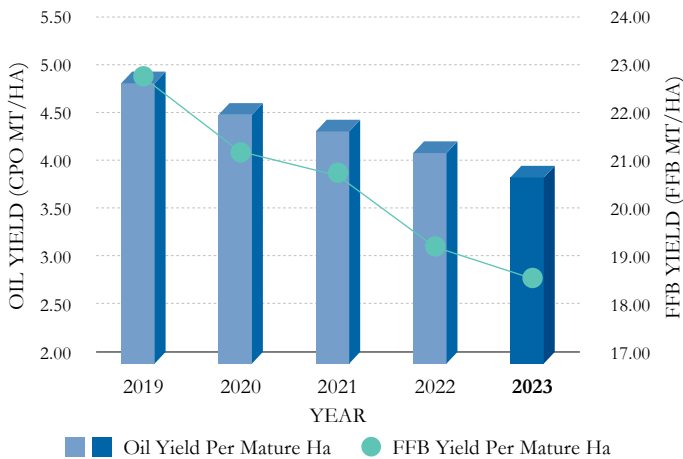


## 5-YEAR PLANTATION PERFORMANCE STATISTICS

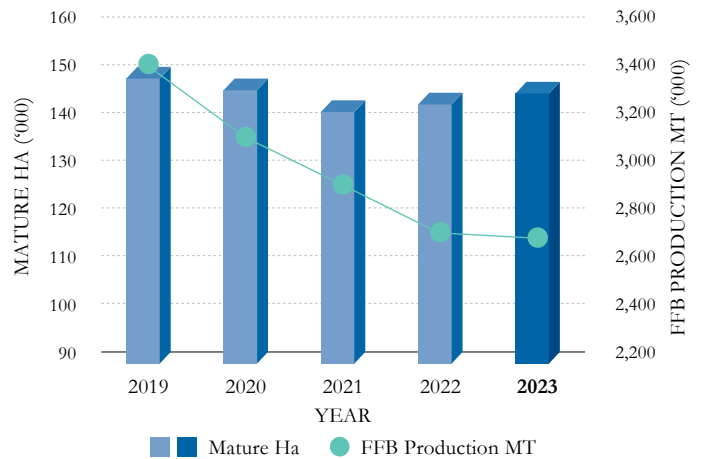
CROP STATEMENT	2023	2022	2021	2020	2019
<b>OIL PALM</b>					
Average mature area harvested (Ha)	143,996	141,011	140,418	145,802	147,770
FFB production (MT)	2,686,356	2,726,516	2,917,621	3,097,262	3,398,847
Yield per mature hectare (MT/Ha)	18.66	19.34	20.78	21.24	23.00
Mill production (MT)					
Crude palm oil	580,688	607,200	646,692	708,212	756,596
Palm kernel	114,818	124,114	135,853	151,473	166,716
Oil extraction rate (%)					
Crude palm oil	20.92	21.39	21.39	21.83	21.44
Palm kernel	4.14	4.37	4.49	4.67	4.72
Average selling price (RM/MT)					
Crude palm oil	4,118	4,688	3,076	2,314	2,025
Palm kernel	2,233	3,593	2,115	1,375	1,390

AREA STATEMENT <i>In Hectares</i>	2023	2022	2021	2020	2019
<b>OIL PALM</b>					
Mature	146,069	143,787	143,749	146,856	147,995
Immature	27,749	31,405	33,177	30,053	28,161
	173,818	175,192	176,926	176,909	176,156
<b>RUBBER</b>					
Mature	449	449	457	457	415
Immature	-	-	-	18	60
	449	449	457	475	475
<b>Others</b>	2,658	1,339	722	684	648
<b>Total planted area</b>	176,925	176,980	178,105	178,068	177,279
<b>Nursery</b>	358	324	254	248	206
<b>Estate under development</b>	462	532	554	836	8,382
<b>Labour lines, building sites and others</b>	29,384	29,277	28,074	27,415	32,070
<b>Total area</b>	207,129	207,113	206,987	206,567	217,937

## OIL YIELDS AND FFB YIELDS

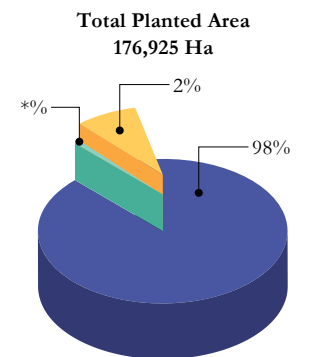


## AVERAGE MATURE OIL PALM AREA HARVESTED AND FFB PRODUCTION



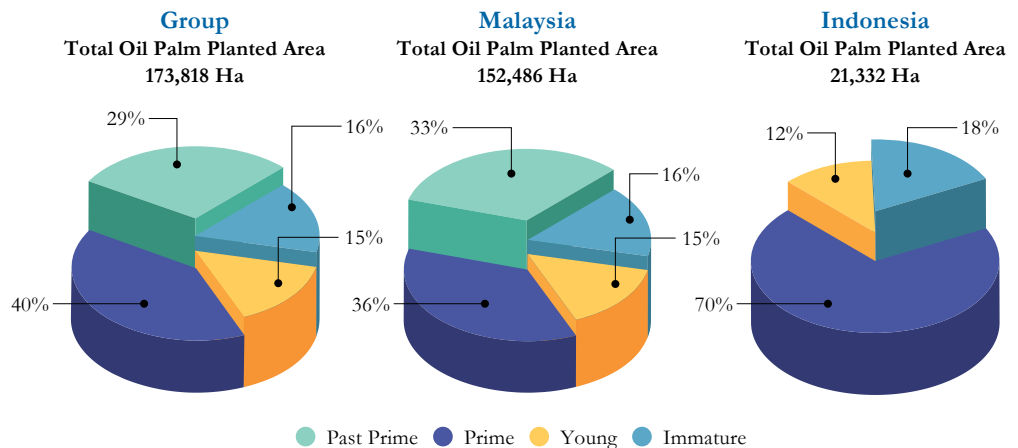
## PLANTATION STATISTICS

### Crop Mix

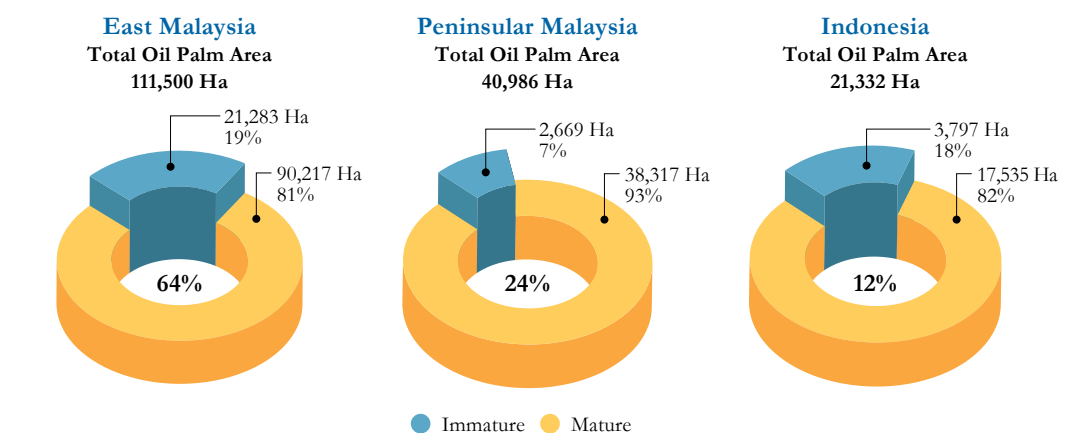


● Oil Palm ● Rubber ● Others  
\* negligible

### Oil Palm Hectareage by Age

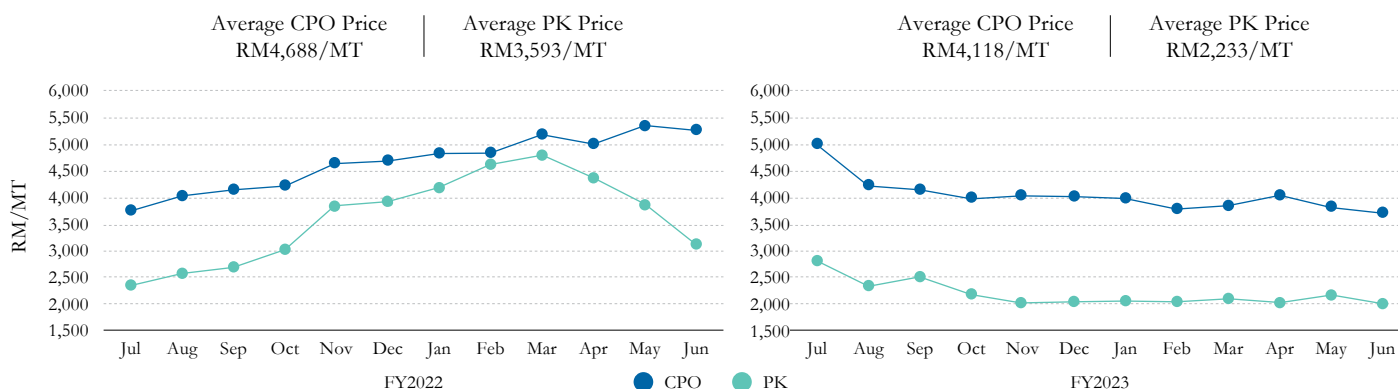


### Oil Palm Hectareage by Region







# GROUP BUSINESS REVIEW – PLANTATION

## AVERAGE REALISED CPO AND PK PRICES



## BUSINESS PERFORMANCE REVIEW 2023

STRATEGIC OBJECTIVES	KEY INITIATIVES	ACHIEVEMENTS IN FY2023																
 <p>Innovating to produce high-yielding planting materials</p>	<ul style="list-style-type: none"> <li>Digitalisation</li> <li>Mechanisation</li> <li>Continued investment in R&amp;D</li> <li>Better worker management</li> <li>Driving to maximise oil yields by innovating with high-yielding clonal palms, superior planting materials and achieving high early yields from young mature palms</li> <li>Embarking on conservation projects to minimise crop loss during adverse weather conditions</li> </ul>	<ol style="list-style-type: none"> <li>IOI continued to attain high yields (as indicated by our top three best performing estates): <table border="1" data-bbox="1103 874 1478 1002"> <thead> <tr> <th>ESTATE</th> <th>OIL YIELD</th> </tr> </thead> <tbody> <tr> <td>a) Morisem 1</td> <td>6.81 MT/ha</td> </tr> <tr> <td>b) Unico 1</td> <td>6.58 MT/ha</td> </tr> <tr> <td>c) Tangkulap</td> <td>6.58 MT/ha</td> </tr> </tbody> </table> </li> <li>Our mills continued to achieve high OERs as a result of FFB crops that are derived from superior high-yielding palms: <table border="1" data-bbox="1103 1023 1478 1151"> <thead> <tr> <th>MILL</th> <th>OER</th> </tr> </thead> <tbody> <tr> <td>a) Baturong (Sabah)</td> <td>24.03%</td> </tr> <tr> <td>b) Morisem (Sabah)</td> <td>22.77%</td> </tr> <tr> <td>c) Mayvin (Sabah)</td> <td>22.10%</td> </tr> </tbody> </table> </li> </ol>	ESTATE	OIL YIELD	a) Morisem 1	6.81 MT/ha	b) Unico 1	6.58 MT/ha	c) Tangkulap	6.58 MT/ha	MILL	OER	a) Baturong (Sabah)	24.03%	b) Morisem (Sabah)	22.77%	c) Mayvin (Sabah)	22.10%
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 <p>Reduce dependency on manual workers via mechanisation, increase productivity and operational efficiency</p>	<ul style="list-style-type: none"> <li>Embarking on conservation projects to minimise crop loss during adverse weather conditions</li> </ul>	<ol style="list-style-type: none"> <li>All our Malaysian plantation operating units are fully integrated with the SAP system and the electronic plantation monitoring system. Meanwhile, we are implementing the e-wallet salary crediting system in all our Malaysian plantation operating units.</li> <li>We have successfully initiated various mechanisation efforts: <ol style="list-style-type: none"> <li>Implemented mechanised mainline FFB evacuation system (using FFB grabber in combination with bin transport system) at 96% of suitable estates across Malaysia, which have improved productivity and enabled the workers to earn better wages.</li> <li>Implemented mechanical assisted infield collection (using motorised power barrow, motorised power crawler, mechanical cart, mini tractor grabber, etc.) at 54% of potential hectareage in our Malaysian estates, which increased harvesters' productivity by 25% to 33%, and reduced dependency on workers by improving harvester to land ratio from 1:16 ha to 1:23 ha.</li> <li>Implemented mechanical sprayer, mechanical fertiliser spreader and mechanical weed sprayer at terraces for upkeep work to reduce dependency on manual workers.</li> <li>Implemented mechanical front-end loader on tractor for organic farming to increase productivity of empty fruit bunches ("EFB") and dry palm oil mill effluent ("POME") application in the fields.</li> <li>Provided continuous training and briefing for our estates' personnel, and increased the number of skilled workers.</li> </ol> </li> </ol>																
 <p>Digitalisation and automation of business processes</p>		<ol style="list-style-type: none"> <li>We have successfully initiated various digitalisation efforts: <ol style="list-style-type: none"> <li>Progressively expanded SAP Fiori web-based application for approval features to senior management and enhanced its functionality for better monitoring, mobility and usage.</li> <li>Improved robotic process automation ("RPA") for Procure to Payment and extended it to financial close process validation.</li> <li>Continuous improvements on simplifying and automating process flow using best practice controls.</li> <li>Ongoing enhancement on SAP and electronic performance management system to improve the efficiency of business processes such as Payment Automation, Host to Host Payment, Agriculture Mechanisation Management, Vehicle Operation Monitoring, Integrated Planting of Cash Crops and others.</li> <li>Ongoing expansion of better and more dynamic reporting using SAP Business Warehouse.</li> </ol> </li> </ol>																
 <p>Diversifying crops and exploring other profitable crops</p>																		

CHALLENGES/RISKS	MITIGATION ACTIONS
Shortage of migrant workers which directly impacted the supply chain (from FFB harvesting to CPO and PK production and sales) leading to lower FFB and oil yields, and negatively impacting revenue.	<ol style="list-style-type: none"> <li>1. Actively recruit more local workers with competitive incentives, improve employee welfare and amenities, and introduce “worker-get-worker” scheme.</li> <li>2. Introduce better work processes and intensify mechanisation or automation to improve the effectiveness and efficiency of the production chain.</li> <li>3. Annually review pay rates for workers to remain competitive whilst addressing the falling exchange rate impact.</li> <li>4. Hold dialogues with relevant authorities through the Malaysian Palm Oil Association or East Malaysian Planters Association on unfavourable worker policies.</li> <li>5. Initiate strategic deployment of harvesters from replanting areas to cover other tall palm areas when there is worker shortage.</li> </ol>
Prolonged drought in Peninsular Region, heavy rainfall and floods in Sabah and Indonesia Regions, which impacted crop productivity and affected FFB production.	<ol style="list-style-type: none"> <li>1. Accelerate mechanisation to enhance efficiency of FFB evacuation, particularly in areas with wet weather conditions.</li> <li>2. Employ water conservation practices such as constructing conservation terraces, silt pits and bunds to retain soil and water.</li> <li>3. Construct weirs at drainage and irrigation systems to maintain soil moisture.</li> <li>4. Apply EFB as mulch to increase water holding capacity and maintain soil fertility.</li> <li>5. Locate sites for water catchment areas such as unplanted steep ravines and low-lying waterlogged basins.</li> <li>6. Desilt annually and improve drains to lead away excessive water during heavy rainfall.</li> </ol>
Hike in production cost due to soaring costs of fertilisers, chemicals and diesel, which correlated with the bullish trend of CPO and PK prices. Apart from that, the minimum wage rate was increased by the Malaysian government from RM1,200 (Peninsular) and RM1,100 (Sabah) to RM1,500 from May 2022 onwards.	<ol style="list-style-type: none"> <li>1. Use alternative energy sources such as biogas energy and solar power to reduce current diesel fuel consumption.</li> <li>2. Revisit manuring programme in order to optimise fertiliser effect or change the type of fertiliser to boost production or to save cost.</li> <li>3. Adopt more mechanisation processes to replace manual work and reduce cost in the long run.</li> <li>4. Actively recruit higher-skilled workers, particularly locals, as part of our mechanisation programme to boost FFB production.</li> <li>5. Speed up capital projects that directly impact and improve production and costs.</li> </ol>
Volatility of CPO price caused by ongoing Russia-Ukraine crisis, trade friction between the United States and China, and drought in South America which affected soybean production.	<ol style="list-style-type: none"> <li>1. Continuously improve operational efficiencies and productivity by implementing cost control initiatives through digitalisation and mechanisation efforts to reduce dependency on migrant workers and mitigate volatility of CPO price.</li> <li>2. Diversify to other crops to mitigate risk of relying solely on palm oil.</li> <li>3. Enter into forward sales contracts to minimise risk.</li> </ol>
Outbreak of insect pests (such as nettle caterpillars), vertebrate pests (such as rats and wild boars) and diseases (such as <i>Ganoderma</i> fungus), which damaged crops and attacked oil palm trees.	<ol style="list-style-type: none"> <li>1. Implement integrated pest management approaches that prioritise biological control over chemical pesticide.</li> <li>2. Employ different techniques during replanting such as soil ripping and ploughing to prevent <i>Ganoderma</i> outbreak; and pulverising trunk chips to minimise breeding of rhinoceros beetles in immature and young mature palms.</li> </ol>
Approximately 29% of IOI’s current oil palm trees are categorised as past prime (more than 21 years old and above), which are due for replanting, causing revenue and profit to be impacted by low FFB production.	<ol style="list-style-type: none"> <li>1. Accelerate replanting programme by planting superior planting materials to achieve early and high yields from a young mature palm age.</li> <li>2. Replant with third-generation Limited Breeding Programme materials crossed with valid progeny-tested AVROS pisifera, which are expected to generate more than 33.0 MT of FFB per ha and have potential to generate more than 8.4 MT of CPO per ha from the seventh year onwards after planting.</li> <li>3. Plan a 4% systematic replanting of land area every year after the completion of our 10-year replanting programme.</li> <li>4. Replant with Advanced Planting Materials aged 16 to 18 months for early maturity.</li> </ol>

## OUTLOOK & PROSPECTS

The Malaysian economy has gradually gathered momentum and surpassed expectations in the first half of 2023 as it rebounded from the pandemic-induced economic distress. The lifting of the recruitment freeze of migrant workers has slowly moderated the acute shortage of workers. Yet, CPO price has been volatile, ranging from RM3,300 to RM4,100 per MT since May 2023. We foresee CPO price to remain range-bound between RM3,500 to RM4,000 per MT until the end of the year before moving higher as a result of lower palm fruits production due to the effects of El Niño phenomenon, which is anticipated to intensify in the coming months.

For FY2024, we expect our financial performance to improve with a moderate increase in our production and oil extraction rates, coupled with the reduction in our input costs (such as fertiliser and diesel prices), mitigating the drop in CPO price from the historical high levels, which should still be significantly higher than the historical average. Palm oil supply in Malaysia is set to soar as the labour crunch eases, paving the way for a healthy increase in crop output

in the second half of 2023. Hence, our production in the second half of 2023 should boost notwithstanding the adverse effects of the abovementioned El Niño phenomenon which is likely to occur from September to October, and will have minimal impact on production. Depending on the severity of the drought, any effect on palm oil yields may only be seen in six to nine months’ time, and in 20 to 22 months for a significant yield cut.

Our growth would be achieved primarily through increased efficiency from our fully replenished new workers in Peninsular Malaysia and higher production from the young palm trees in our Indonesian plantations. Over in Sabah, we are accelerating our replanting programme to maintain a good age profile for sustainable growth. We expect to replant about 7.1% of our Malaysian planted area with superior planting materials in FY2024. At the same time, we are accelerating our digitalisation and mechanisation plans to progressively reduce our dependency on manual workers. Overall, we are optimistic of a satisfactory financial performance in FY2024.

GROUP OVERVIEW

KEY MESSAGES

STRATEGIC VALUE CREATION

STRATEGIC PROGRESS

PERFORMANCE REVIEW

GOVERNANCE

FINANCIAL REPORT

ADDITIONAL INFORMATION