



UNITED PLANTATIONS BERHAD

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SUSTAINABILITY REPORT  
2020

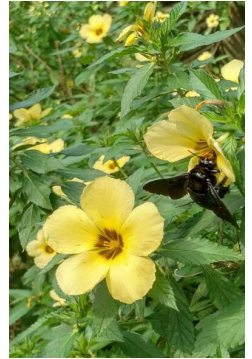
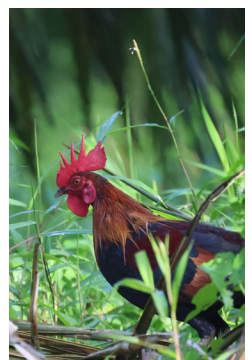
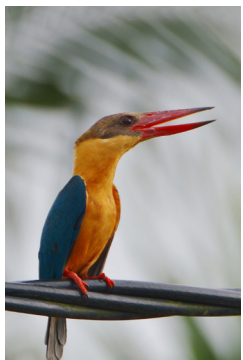
*A Buffy Fish owl displaying impressive flexibility by rotating its neck to a 180 degrees whilst engaging a snake as its meal.*



# Sustainability Report 2020

## Contents

|  |         |
|--|---------|
| About this report                            | 32      |
| Message from the CED                         | 33 - 36 |
| Our Value Creation Model                     | 40 - 41 |
| Governance Structure                         | 42 - 43 |
| Materiality                                  | 44 - 45 |
| United Nations Sustainable Development Goals | 46      |
| Targets and Achievements                     | 46      |
| Awards and Recognitions                      | 46      |
| UP and the Sustainability Certifications     | 46 - 47 |
| UP's Material Sustainability Matters         | 49 - 95 |
| - Employees                                  | 49 - 53 |
| - Environment                                | 55 - 78 |
| - Community                                  | 80 - 83 |
| - Marketplace                                | 85 - 92 |
| Commitment to Quality                        | 93 - 95 |
| Assurance Report from KPMG                   | 96 - 97 |
| Glossary                                     | 98      |





## About This Report

United Plantations has always taken pride in its sustainable approach to all aspects of its operations and we are therefore pleased to present our 2020 Sustainability Report to interested stakeholders. This Report covers our pursuit of sustainable value creation through good governance, and strong commitment towards environmental, economic and social performance across all our operational and management activities within the UP Group including Subsidiaries in the form of our Refineries (Unitata and UniFuji), bulking installation (Butterworth Bulking Installation), as well as our plantations and mills in Malaysia and Indonesia.

This report, which represents a further step towards an integrated report, focuses primarily on updates and activities carried out within the financial year ended 31 December 2020, with comparable prior year statistics, where available and relevant.

The Sustainability Report for 2020 will remain as part of our Annual Report. There is no structural change in our Annual Report 2020 however the data reporting for our Joint Venture refinery, UniFuji and our newly acquired plantation, Tanarata Estate have been included in the scope.

The structure and content for this report draws upon guidance from Bursa Malaysia's Sustainability Reporting Framework and the GRI Sustainability Reporting Guidelines. Our internal Sustainability Committee is responsible for officially coordinating with the various departments and subsidiaries in assessing and covering all key material sustainability matters within our Group. In preparation of this report, we have again engaged and considered the responses from both internal and external stakeholders and performed a thorough internal review and assessment of key sustainability

aspects and impacts which represents the most critical areas of our Group's business and operations and in this connection, we would like to thank all stakeholders for their valuable participation. This exercise resulted in arriving at 22 material sustainability matters at various significant levels. These are reflected in the materiality matrix included in this report.

As part of our sustainability processes and activities we will continue to strengthen our performance and disclosures to various stakeholders by monitoring our specific targets and key performance indicators, fostering close relationship with our stakeholders as well as harmonising material sustainability risks across the Group. We hope to provide our stakeholders with an overview of our approach and continuous progress in meeting our sustainability commitments.

This report has been prepared in accordance with the GRI Standards: Core option.

For more information on the GRI Index, please refer to our website [www.unitedplantations.com/sustainability/](http://www.unitedplantations.com/sustainability/).

### External Assurance

GRI recommends the use of external assurance, but it is not a compulsory requirement under the Standards. Nevertheless, we believe external assurance adds credibility and transparency to our sustainability reporting. In this connection, we are pleased to inform our stakeholders that KPMG has provided limited assurance over 10 selected Key Performance Indicators (KPI's) reported in our 2020 Sustainability Report thereby bringing additional value and credibility to our disclosure. Their assurance report is available on pages 96 to 97.



*A beautiful sunset at Jendarata Estate with an owl house amongst young oil palms.*



## Message From The CED



*Dato' Carl Bek-Nielsen giving an address on Sustainable Palm Oil*

I am pleased to present UP's 2020 Sustainability Report to you in which we describe our Group's sustainability policies and actions in order to share our commitment on sustainability and to demonstrate how we are pursuing this in practice. Ultimately, it is our actions and behaviour that defines what type of company we are. In this context, it must be clear that the Executive Committee (EXCOM) of UP continues to view sustainability as one of the key pillars in our Group's Strategy that is of paramount importance to our long-term success and well-being.

### Governance & Certification

For generations, UP has interweaved Environmental Responsibility, Social Awareness and Economic viability into the way we conduct our business. Through our Governance structure and robust risk management policies, our sustainability commitments are transparently operationalized and monitored, and we continue to strengthen this important focus area based on third party independent assessments, feedbacks from customers, partnerships and other stakeholders.

This commitment was evidenced by the fact that the world's very first RSPO certificate was awarded to UP in 2008. Our commitment was further reinforced by obtaining the Malaysian Sustainable Palm Oil (MSPO) certification in 2018 and Indonesian Sustainable Palm Oil (ISPO) certification in 2019.

Today we remain 100% committed to the MSPO, ISPO and RSPO principles and criteria (P&C), where we welcome the implementation of the new RSPO P&C 2018 which came into effect in November 2019. This involves major enhancements to an already robust standard including amongst others a clear commitment to No deforestation, No new planting on peat regardless of its depth, reinforced protection of human and labour rights (stronger alignment with the Core International Human Rights Treaties and relevant ILO Conventions across all RSPO membership categories) as well as an enhanced focus on fire prevention.

These initiatives combined raises the bar for sustainable production even further in order to meet the changing consumer requirements shaping the landscape for tomorrow's demands. We see this as a necessary commitment in order to assure the industry's future relevance and acceptance by consumers around the world. This compels Management to keep stimulating new

progressive ideas, failing which, the positive momentum created by so many individuals in our Group over the last 115 years will slow down.

In this connection, we are pleased that all UP Mills and Estates have been successfully certified against this latest RSPO P&C 2018 except for our newly acquired plantation, Tanarata Estate, which is anticipated to conduct the RSPO Scope Extension Assessment before the end of 2022 (within three years from the date of acquisition i.e August 2019). We nevertheless acknowledge that much more can and must be done and intend to continue working hard at integrating as well as mainstreaming our sustainability efforts into our operations.

We also acknowledge the latest sustainability initiatives by e.g. the European Union and various sustainable palm oil forums like FONAP, to improve Human Rights and supply chain traceability amongst others. We welcome such initiatives to promote sustainable palm oil and improve existing standards whilst also establishing a level playing field with the same standards for all agriculture related commodities.

During 2020, the materiality assessment has again been carried out in close collaboration with our stakeholders, in which views and expectations on various topics have been discussed and documented, thereby enabling us to identify and map the most relevant issues pertaining to our economic, environmental and social risks and opportunities. This exercise has been very rewarding and is fundamental to achieving our business strategy and with that our well-being. However, we must not forget that our commitment to sustainability is an ongoing journey with no finishing line. We will therefore continue to align our business values, purposes and strategy with sustainability principles divided into four main areas, namely Employees, Environment, Community and Marketplace.

2020 was a challenging year due to the presence of the COVID-19 pandemic, and we have taken many proactive measures to safeguard our employees. This includes the establishment of Standard Operating Procedures (SOPs) to prevent an outbreak within our premises, dedicated quarantine centres for isolation and regular internal audits and training sessions to create awareness and ensure compliance with the SOPs. In our Malaysian operations we had several suspected COVID-19 cases during the year, however after isolation and testing, none of them turned out positive.

In Indonesia, on the other hand, seven employees to date have unfortunately tested positive. Our Group places the highest priority on the health and safety of our employees and their families and it is therefore most pleasing that all the affected employees have now recovered. Furthermore, the strict measures taken to keep COVID-19 out of our premises enabled all manufacturing units to operate without disruptions. The chain is no stronger than the weakest link and much focus will be dedicated towards this area during 2021 as we must not become complacent and let our guard down with record-high COVID-19 numbers now being recorded in both Malaysia and Indonesia.





*In line with our commitment of reducing GHG emission, all UP's Palm Oil mills are equipped with Biogas Plants. The above are situated at the Optimill in Ulu Bernam.*

### Human Rights and Safety

Our employees have been and will always be our core assets and a key pillar for the success and continued growth of our Group. In this connection, their welfare and rights as well as a safe and healthy workplace are of key importance in every aspect of our operations.

We remain focused on safety leadership and strategies targeting risk reduction as we value the lives and well-being of our employees, contractors, visitors and local communities throughout our operations. We are doing our best to improve awareness on safe practices and to enhance preventive skills among all our employees in order to minimise the risk of workplace accidents. It is therefore most disturbing and regretful that our Group experienced two fatal accidents in UP Malaysia and another two in UP Indonesia in 2020.

The fatalities in UP Malaysia involved an employee falling from height, and a confined space related work incident. In UP Indonesia, the two fatal accidents happened while awaiting transport to return home, as one employee fell into a river and the other employee trying to rescue him resulting in both of them drowning. Such accidents are most unfortunate and deeply regrettable and our hearts go out to their bereaved families for their loss.

### Newly established Safety Division

In this connection, I am pleased to report that during 2020 we took affirmative steps by taking on a greater level of ownership towards this commitment by creating a Safety Division under the Human Resources, Sustainability and Safety (HRSS) Department.

An additional 3 full time safety officers have been recruited to the Safety Division now totalling 5 officers. Going forward the Safety Division will on a quarterly basis be requested to brief the Company's Executive Committee Members on the progress made as well as shortcomings that have been encountered, so these can be addressed affirmatively. A higher degree of vigilance has now started with a more systematic and disciplined follow up to areas identified to have weaknesses. This will be galvanised through training programmes, "Reach and Teach" and "Reach and Remind" sessions combined with impromptu safety audits in our mills, estates and refineries and HIRARC programmes across the UP Group so to better prevent and minimise the risks of accidents taking place. Our common goal on safety must be "one accident is one too many".

During 2020, progress was made to maintain the highest possible welfare standard for our workforce. In this connection, new investments in infrastructural amenities as well as improving on services to our employees will continue in 2021. With the acquisition of the 3,642 hectares Pinehill Estate (now known as Tanarata Estate), a total upgrade in the infrastructure and social amenities has begun in earnest in order to emulate the high standards present at our other Estates. We are confident that there will be a positive turnaround of the property which includes its upgrade into a MSPO and RSPO certified entity of our Group by 2022.

### Environment

As the world faces the threat of global warming, we are all becoming increasingly aware that our presence on this earth leaves a mark on the environment.





UP is committed to being a leader in environmental performance by not just focusing on good agricultural practices but also by committing itself to minimising its impact on the natural resources. Finding the right balance between Economy and Ecology remains a cornerstone in our Group and much emphasis is therefore placed on reducing variables that impact our environment negatively.

Much scrutiny and criticism has been aimed at the palm oil industry, with accusations of habitat destruction and endangered of protected species, indiscriminate burning and causing regional trans-boundary haze, as well as contributing towards social conflicts and climate change.

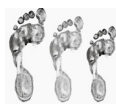
Whilst palm oil production has contributed to certain aspects of the above and whilst there are rogue players who blatantly violate most environmental laws, it is important that the accusations are backed by holistic facts and presented objectively instead of being singled out as the lightning rod for the public's growing anger on issues concerning deforestation and climate change. Herein it is important to note that the palm oil industry today accounts for less than 0.5% of the world's total agricultural area, yet accounts for the 37% of the global oils and fats production.

The palm oil industry is complex and far too often it is subject to being painted with one brush without recognizing the tremendous efforts undertaken by many different stakeholders, including producers, to promote the responsible production and consumption of sustainable palm oil.

Unjust subjective accusations keep tarnishing the image of the industry without offering solutions or taking ownership of problems. This behaviour will get us nowhere apart from negatively impacting the livelihoods of millions of people whose sole objective is to uplift themselves out of poverty. We need to be more nuanced with our criticism but also highlighting good practices so others may emulate these.

Our Group therefore believes that producing palm oil sustainably is the only way forward wherefore it is important that all stakeholders support the gold standard RSPO, or other credible initiatives, in order to make sustainable palm oil the goal. This above all else should be our shared objective.

### Reducing our Carbon Footprint



Our Group's commitment towards mitigating its "carbon footprint" and thereby its Greenhouse Gas (GHG) emissions remains a high priority to which new initiatives and investments continue to be made.

Since 2005 our Company began working with 2.0-LCA consultants from Denmark on a very comprehensive Life Cycle Assessment (LCA) study, which was finalised in 2008 becoming the first LCA on palm oil ever. This pioneering study was fully compliant with and critically reviewed according to the international ISO 14040 and ISO 14044 standards for a LCA. Another update was undertaken

during January to February 2020, building on top of four other large studies carried out for United Plantations Bhd in 2008, 2011, 2014, 2017 and 2020.

In this connection, I am pleased to report that the summary of the LCA clearly demonstrates that United Plantations Bhd has shown a 59% reduction in its GHG emissions per kg of palm oil produced from 2004 to 2020 when including indirect land use change (iLUC) and nature conservation.

Our goal of reaching 60% reduction (including iLUC and nature conservation) of the GHG emissions by 2025 remains an ambitious target set by Management and we shall relentlessly pursue to reach and exceed this through new innovations inspired by our strong collaboration and network in Scandinavia. (please refer to page 66)

In this respect, new investments were made during 2020 to further expand our light railway network which uses 1/10th of the fossil fuels compared to tractor/lorry transportation when transporting one unit of Fresh Fruit Bunches from the fields to our 4 mills in Malaysia. The total length of our light railway network has expanded from 479km in 2015 to 587km as of 31st December 2020 equal to a net increase of 108km in 5 years.

Another milestone was also reached in September 2020 when our Group phased out the usage of a class 1A and 1B pesticides under the Stockholm convention by ceasing its use of Monocrotophos. This has been a long journey and included cooperations and lengthy trials with large agrochemical companies initiated before 2010.

### Collaboration with Copenhagen Zoo



Conservation of jungle reserves and promoting biodiversity remain of vital importance to the UP group. In this respect it continues to be our view that conservation means development as much as it does conservation and that all growers should strive towards reaching this balance and in doing so simultaneously aspire to fulfil the United Nations Sustainable Development Goals (SDGs). This is the only sustainable and holistic approach which will help to ensure that positive changes takes place.

Herein, I am delighted that our collaboration with Copenhagen Zoo which was initiated in 2007 and officially established in 2010, continues to develop positively with many success stories arising from the hard work, research and studies undertaken to date.

The commitment and skills introduced by Copenhagen Zoo have been extremely valuable mainly from a conservation point of view. This has helped our Group operationalise one of the vital components of sustainability namely building an in-house capacity to manage conservation and nurture our more than 7,500Ha jungle reserves under our Group's landbank.

Today, our Biodiversity team more than ever is responsible for mainstreaming environmental concerns into standard operating procedures. Nevertheless, more can be done and there are still areas in need of greater attention which will be areas of focus in 2021.



## Community

We recognise that we are part of a global community, and that we therefore have an obligation to bring about positive change to the lives for the families of our employees and our local communities. In that connection, we shall keep striving to play a positive role in and around the locations where we operate by first and foremost taking ownership of problems that arise.

Amongst others, we intend to do so by engaging and working closely with local communities in our efforts to uplift their living standards and to offer business and employment opportunities to interested parties wherever possible, thereby contributing to the wealth, resources and expertise to local economies. During 2020, our desire to engage with various stakeholders was compromised very considerably following the COVID-19 pandemic where large physical gatherings were forbidden both in Malaysia and Indonesia.

We will nevertheless resume our various engagements with the smallholder societies as soon as normalcy returns by conducting smallholder field days where the overall objective continues to be passing on knowledge to the smallholders so they can improve their yields, agricultural practices, safety awareness, conservation and thereby their livelihoods.

In Indonesia, we are fully committed towards the Plasma scheme and continue our positive progress in establishing additional areas for the benefit of neighbouring communities.

Through respect and engagement with local communities and community leaders in Indonesia, we have seen positive developments in alleviating conflicts relating to land rights, which are handled in an amicable and transparent manner through proper grievance procedures and in line with the spirit of the RSPO which is described further in this report. Furthermore, continuous improvements were made during 2020 to maintain the highest possible welfare standards for our workforce and to ensure high standards of educational facilities provided for their children.

This naturally includes the continuous review and upgrading of our housing facilities provided to our employees, be this guest workers or local employees. A total revamp has been underway on Tanarata Estate (formerly known as Pinehill Estate) with all of the earlier employee houses being demolished and new, modern and spacious houses in the process of being constructed.

This process will continue at Tanarata Estate during 2021 as well as in other areas of our Group. We believe that in order for any business to develop fruitfully one must commit oneself to a long-term perspective and shun short-termism.

Only by committing oneself to this and taking ownership can one conceptualize the true spirit of creating shared value (CSV) which is a fundamental step towards forming a sustainable and successful business.

## Marketplace

UP recognises the importance placed by our customers and consumers on food safety, product quality and traceability of the supply chain. Full traceability demonstrates that we are in control of our operations and that our supply of palm oil is safe as well as produced ethically. This has opened up market opportunities amongst reputable brand manufacturers and retailers globally who more than ever demand on verifying the evidence relating to the assurances of sustainable and traceable palm oil which we have been able to offer customers. We welcome this level of transparency and acknowledge that the trust between a brand and a consumer can only be built through actions and not through advertising or glossy brochures as was the case in the past. Ultimately, our Group's behaviour is our brand and our license to operate therefore depends on behaving well.

We have established a total overview of our supply chain and for our upstream operations, we can identify the palm oil mills from which the Crude Palm Oil and Palm Kernels are produced as well as the plantations from which fresh fruit bunches (FFB) are derived from. This supply chain has been mapped out to ensure traceability and food safety and to focus on a structured approach should any grievances be raised by our stakeholders. For our downstream operations, we have also mapped our supply chain and whilst all our palm oil can be traced back to the plantations or the various palm oil mills, the main portion of the palm kernel oil which we use can only be traced back to the Palm Kernel crushing plants and palm oil mills. To trace all the palm kernel oil back to the plantations is still a challenge and is a process that will be pursued further in the coming years.

Whilst we acknowledge that we have come a long way in our sustainability journey, we are also aware that there are many challenges ahead which we will have to meet. The points I have touched on above serve only as highlight to this report, and will be further elaborated upon in the following pages (pages 31 to 98).

Furthermore, I would recommend that you seek additional information under the sustainability section on our website, [www.unitedplantations.com/sustainability/](http://www.unitedplantations.com/sustainability/).

Finally, I thank you for your interest in our sustainability efforts and I hope that you will find our journey interesting. I would also like to thank our Board of Directors for their continuous support, guidance and interest in this report as well as all our partners and stakeholders including NGOs for their active and valuable participation and inputs that continues to be of much value to our Group. With the continuous commitment by our Group including an active participation by all our stakeholders, I am confident that we will be able to face most challenges ahead of us as we keep moving forward with our sustainability commitments.

**Dato' Carl Bek-Nielsen**  
Chief Executive Director (CED)





High quality products from the Unitata refinery are destined for local and oversea buyers.





*A vision and a mission accomplished - the Optimill and UniFuji project encompassing an example of the "circular economy" in full operation.*







## Our Value Creation Model

We strive to remain a leader within responsible agriculture based on our core values of integrity, discipline, innovation and R&D combined with a dedicated focus on sustainability. Our value creation model enables us to focus on the resources we have available and how we can create value for our stakeholders over time through our integrated business activities.

### Business Resources (Input)

| FINANCIAL RESOURCES                                       | HUMAN RESOURCES                   | INTELLECTUAL RESOURCES                   | SOCIAL & RELATIONSHIP RESOURCES   | MANUFACTURED RESOURCES   | NATURAL RESOURCES                           |
|---|-----------------------------------|--|---|--|---|
| Strong and stable financial position enabling investments | Dedicated and competent employees | Vast experience and knowledge            | Key stakeholders including suppliers and international customers                  | Well-functioning palm oil mills and refineries integrated with estates | Fertile and strategically located land bank |
| Access to financial institutions                          | Succession planning and training  | Innovation and R&D capabilities          | Good collaboration with local government institutions and surrounding communities | Quality control and R&D investment in place                            | Biomass availability                        |
|   | Sustainability focus              | Good agricultural practices and policies |   |  | Water availability through adjacent rivers  |
| MARKET CAP<br><b>RM6.04 billion</b>                       | EMPLOYEES<br><b>6,098</b>         | SINCE<br><b>1906</b>                     | PLASMA<br><b>1,314 Ha</b>   | REFINERIES<br><b>2</b>   | LAND BANK<br><b>63,074 Ha</b>               |
| CASH AND SHORT TERM FUNDS<br><b>RM465 million</b>         |                                   | R&D ESTABLISHED<br><b>1951</b>           | COPENHAGEN ZOO COLLABORATION<br><b>Since 2010</b>                                 | PALM OIL MILLS<br><b>5</b>   | PLANTED AREA<br><b>51,272 Ha</b>            |
| DEBT/EQUITY RATIO<br><b>0.13</b>                          |                                   |  | SOCIAL COMMITMENTS<br><b>RM18 million</b>   | BIOGAS PLANTS<br><b>5</b>  | CONSERVATION<br><b>8,026 Ha</b>             |

### Our Integrated Business

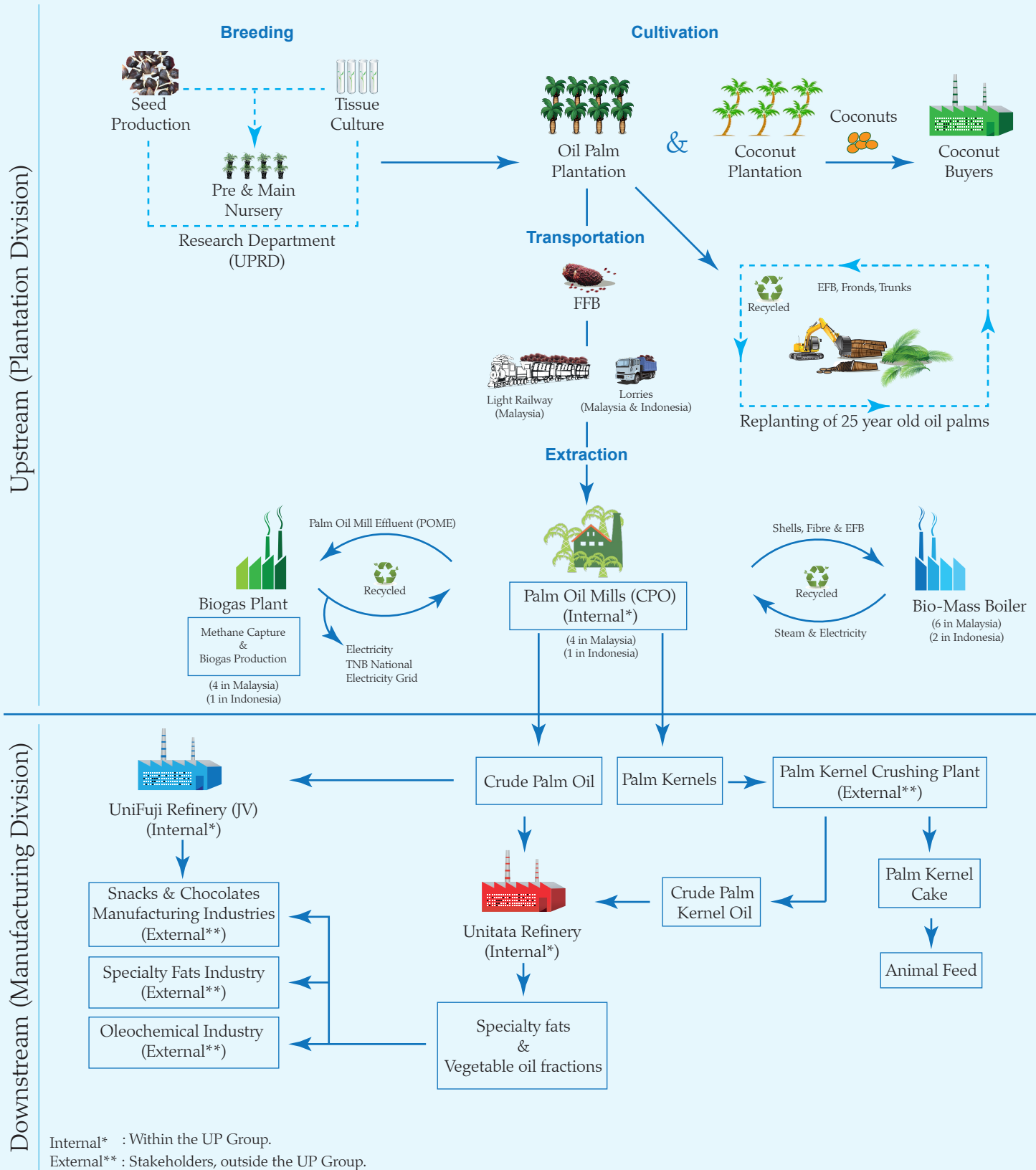


### Business Resources (Output)

| SHAREHOLDER VALUE   | EMPLOYEE SATISFACTION AND CREATING SHARED VALUE                                   | CERTIFIED SUSTAINABLE PALM OIL                                     | BALANCE BETWEEN ECONOMY AND ECOLOGY                     | QUALITY PRODUCTS   | GREEN HOUSE GAS EMISSIONS AND WASTE   |
|---|---|--|---|--|---|
| Value created through good performance                    | Safe and respectful work environment  | Sustainability practices operationalised                           | Focus on R&D and efficiency to optimise yields          | Delivering premium quality products and services that are safe and based on a high level of responsibility | Key focus and investments in the circular economy where waste is converted to renewable energy. |
| Capital appreciation and sustainable dividends over time. | Good housing, medical & education facilities                                      | Increasing sales of certified sustainable products of high quality | Preserving the environment through conservation efforts |  |   |
| PROFIT AFTER TAX<br><b>402 million</b>                    | Advancing the economic and social condition in the surrounding communities        | RSPO CERTIFIED PALM OIL<br><b>214,000 MT</b>                       | FFB YIELD/Ha<br><b>26.65 MT</b>                         | CERTIFICATION<br><b>ISO 9001, HACCP, HALAL, KOSHER, BRC, GMP, MESTI, FDA, GMP +B2, MPCA</b>                | REDUCTION OF GHG EMISSIONS SINCE 2004 (INCLUDING ILUC & NATURE CONSERVATION)<br><b>59%</b>      |
| EARNING PER SHARE<br><b>96 sen</b>                        | SAFETY PERFORMANCE<br>UP MALAYSIA : LTIFR - 8.31<br>UP INDONESIA : LTIFR - 117.20 | RSPO CERTIFIED PALM KERNEL<br><b>43,000 MT</b>                     | OER<br><b>22.24%</b>                                    | LOW CONTAMINANTS<br>3-MCPD < 0.5 ppm<br>GLYCIDYL < 1.0 ppm   | BIOMASS UTILISATION RATE<br><b>99.7%</b>  |
| DIVIDEND YIELD<br><b>5.85%</b>                            | PLASMA FARMERS<br><b>815</b>  | RSPO CERTIFIED AREA<br><b>82%</b>                                  | CPO YIELD/Ha<br><b>5.93 MT</b>                          |  |   |
|   |   |  | TOTAL ANIMAL SPECIES<br><b>485</b>                      |  |   |

Through our integrated business, we support and contribute towards the United Nation Sustainable Development Goals (UNSDGs).

## Creating Value Through UP's Integrated Business Activities



## Segmental Contribution 2020

| UPSTREAM      | DOWNSTREAM   | OTHERS      |
|---------------|--------------|-------------|
| <b>85 %</b>   | <b>14 %</b>  | <b>1 %</b>  |
| RM341 million | RM55 million | RM6 million |



## Governance Structure

Effective governance and robust risk management policies and procedures combined with our core values are key for achieving long term success.

The Board of Directors of UP is responsible for approving the direction and overall strategy for UP Group and monitoring and management's progress in connection with the financial objectives and strategic priorities. The Board receives a formal Sustainability Report at least once a year before it is reviewed and approved for release to the shareholders and public.

In relation to UP's overall sustainability objectives, targets and priorities, the Board of Directors has delegated responsibility to the Executive Committee (EXCOM) headed by the Chief Executive Director (CED), Dato' Carl Bek-Nielsen. The Executive Committee reviews and approves UP's sustainability objectives and monitors progress and sustainability developments within the Group.

The CED and EXCOM are assisted by the Group Sustainability Committee (GSC) which is chaired by the CED. There is also the Group Sustainability Reporting Team (GSRT) headed by Mr. Martin Bek-Nielsen, Executive

Director, Finance & Marketing and includes key personal from Finance, Research, HR, Sustainability and Safety, Share Registrar and Marketing Departments.

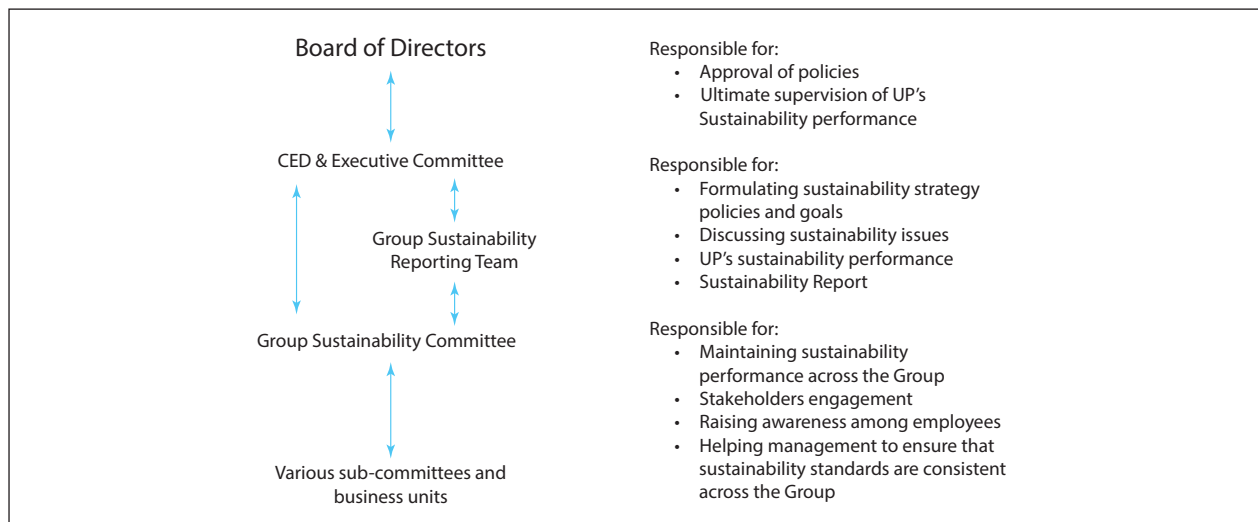
The GSRT collates all the information from the GSC, stakeholders' responses and prepares the Sustainability Report.

Sustainability matters have been a subject close to the heart of UP. Officially established in 2003, the GSC provides policy direction on strategic leadership on UP's Sustainability agenda, identifies our Group's most material issues in relation to risks and opportunities and monitors progress against targets set by the CED and EXCOM on a bi-annual basis.

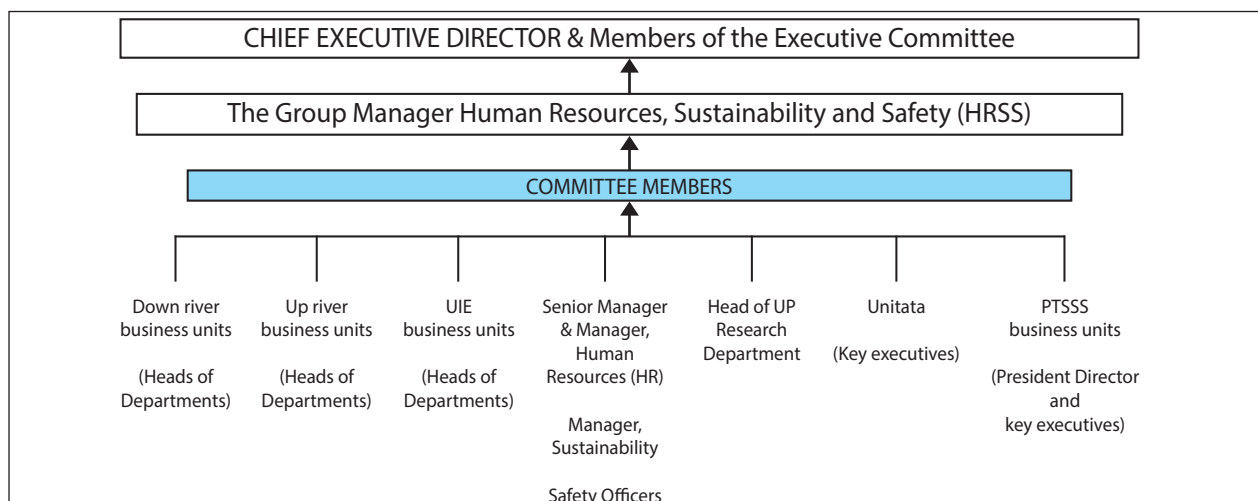
Since the Sustainability Report became mandatory in 2016, Mr. Martin Bek-Nielsen has been briefing the Board, CED and EXCOM on the work of the GSRT and sustainability issues at every official meeting held.

Sustainability is also a key aspect in the Group's Risk Management Structure which assesses various sustainability issues and developments in its annual Risk Assessment and Management process.

### Sustainability Governance Management Structure

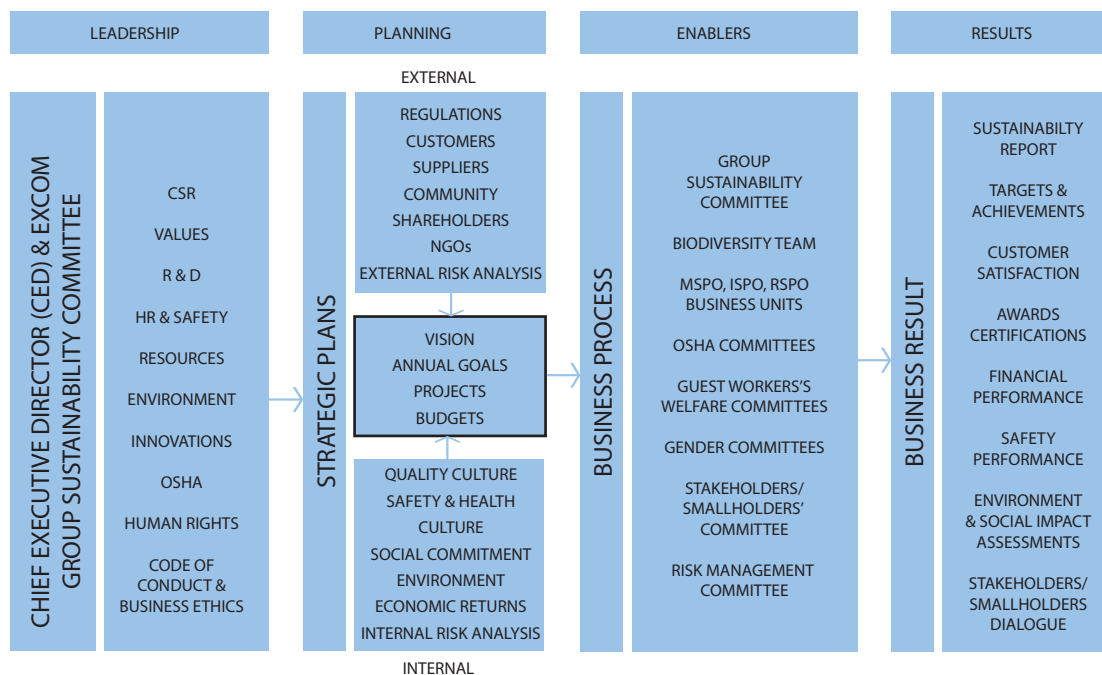


### Group Sustainability Committee





## Group Sustainability Systems Framework (GSSF)



UP's Group Sustainability Systems Framework (GSSF) is the system through which its commitment to environment and sustainable development including social and occupational safety & health matters are formalized. It is based on four key focus areas as follows:

**Leadership** of the Group Sustainability Committee is at the highest level of the company and is spearheaded by the Chief Executive Director Dato' Carl Bek-Nielsen. This committee provides policy directions on environment and sustainable development, occupational safety and health, allocation of resources and communications.

**Planning** encompassing external and internal needs that are formulated through the company's vision, policies, goals, projects budgets and risk analysis.

**Enablers** are various sub-committees and teams that ensure the adoption of environment and operational practices that are in line with current best practices and policies.

The MSPO, ISPO and RSPO business units and the various sub-committees are enablers of the GSSF and ensure that the environmental and operational policies are implemented. They are guided amongst others by the MSPO, ISPO and RSPO's Principles and Criteria and following Manuals and SOPs:

- 1) MSPO, ISPO and RSPO Principles and Criteria

- 2) Field Management Manual

- 3) Standard Operating Procedures – Oil palm field practices

- 4) Standard Operating Procedures – Palm Oil Mill operations

- 5) Occupational Safety and Health and HIRARC Manual

- 6) Environment & Social Impact Assessments and its Management & Monitoring Plans

- 7) High Conservation Value, High Carbon Stock Assessments and its Management & Monitoring Plans

- 8) ISO9001:2008, HACCP and Quality Manual for our Refineries

**Results** are measured through customer satisfaction, safety performance, financial performance, environment protection and management and certifications.

The Group's Internal Audit Department, together with the Group's HRSS Department carries out audits on various sustainability issues and areas throughout the year to ensure compliance to the Group's sustainability policies and procedures.



## Materiality

This report addresses key sustainability matters which have been identified after taking into consideration both the Group's view on significant environmental, economic and social aspects, impacts, risks and opportunities which are vital to the success and continued growth of the Group, and the views and responses from our stakeholders on pressing material issues.

In identifying the material sustainability matters, and opportunities, we have drawn information from various internal and external sources of information which include the views of the Group Sustainability Reporting Team within our organisation, stakeholders, industry groups, standards recommended by global and industry specific reporting bodies, such as the Roundtable for Sustainable Palm Oil (RSPO) and the Global Reporting Initiative (GRI) and existing peer literature.

As a result of the abovementioned exercise and evaluation of the Group's Sustainability Risks and Opportunities, we have this year identified 22 key sustainability issues under four main headers, namely Environment, Employees, Community and

Marketplace, which we have assessed as being of high concern to stakeholders and of high significance for our Group in 2020.

Data collected from various stakeholders are then analysed and used to create a materiality matrix which also includes the assessment on the significance of the identified key sustainability matters and the prioritisation of stakeholders to the organisation.

The resulting Materiality Matrix is as shown on the following page. Material issues which have been identified are then assessed by the Sustainability Reporting Team to establish if there are policies and procedures in place to address and manage these issues, and if none, to ensure implementation plans are drawn up and presented to the management for follow up as part of the Group's sustainability commitment.

Quantifiable indicator data and targets are assigned where relevant and are communicated to our stakeholders via this Sustainability Report. The materiality assessment has been reviewed and endorsed by Executive Committee (EXCOM) of UP.



*Hampered field operations during the exceptionally wet weather experienced in December.*

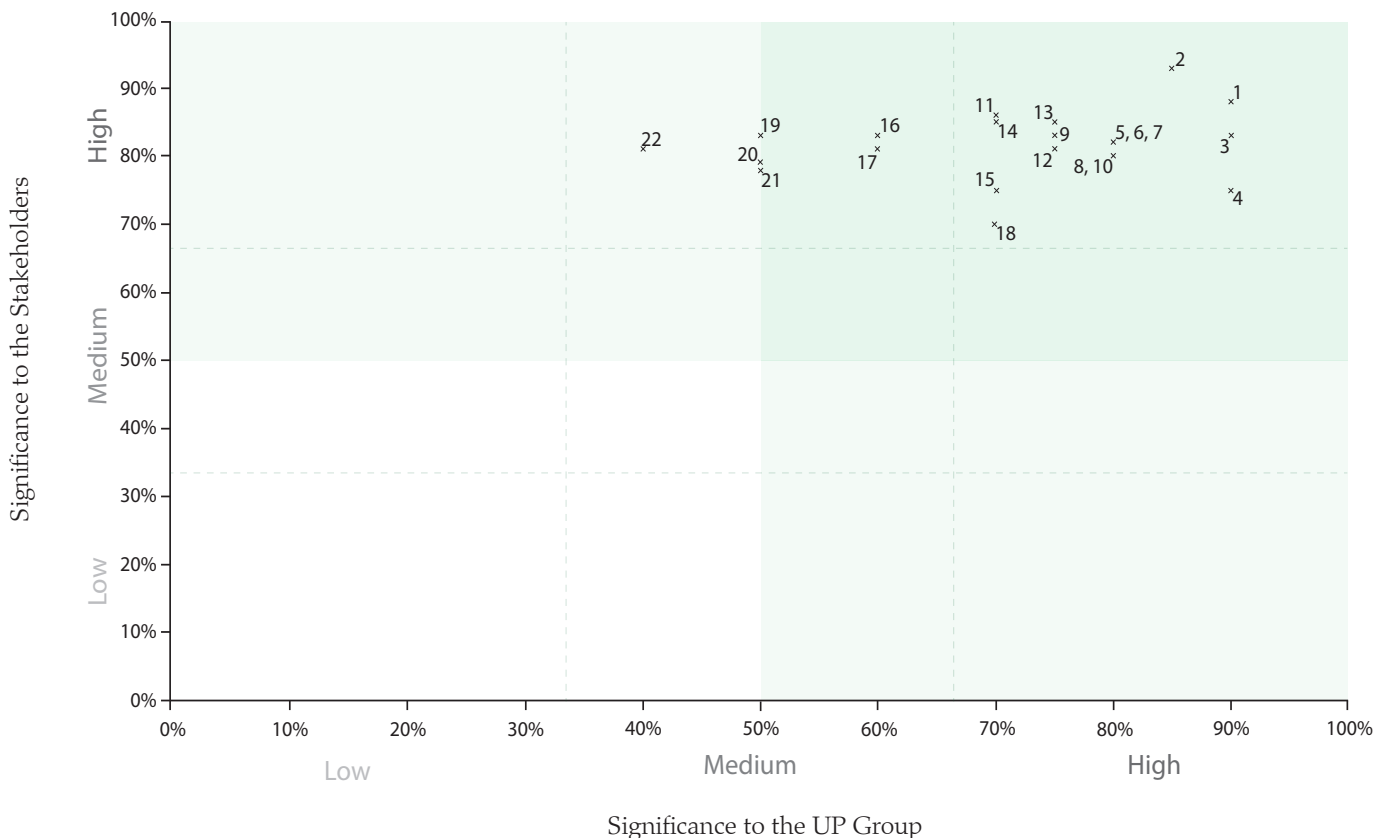


## Summary of Materiality Matters

| 22 Key Sustainability Issues   | Relevant UN SDGs * | Stakeholder Groups                     |
|--|--------------------|--|
| 1. Human & Workers' Rights   | 1, 8               |  |
| 2. Occupational Safety & Health                                      | 3, 9               |  |
| 3. Product Quality   | 12                 |  |
| 4. Commodity Prices  | -                  |  |
| 5. Deforestation / High Carbon Stock                                 | 13                 |  |
| 6. Certifications for Food Safety, Sustainability and Others         | 12                 |  |
| 7. Biodiversity & Conservation                                       | 14, 15, 16, 17     |  |
| 8. Sustainability and Traceable Supply Chains                        | 12                 | - Shareholders                         |
| 9. GHG Emissions, Discharges & Waste Management                      | 7, 9, 13, 16, 17   | - Employees                            |
| 10. Free, Prior and Informed Consent                                 | 16                 | - Customers/Consumers                  |
| 11. Social Care & Workers' Welfare (COVID-19 Precautionary Measures) | 2, 4, 8            | - Local Communities /Smallholders      |
| 12. Fighting the Haze and Preventing Fires                           | 13                 | - Government Agencies / Regulators     |
| 13. Community Welfare  | 3, 4, 8            | - Non-Governmental Organisations (NGO) |
| 14. Code of Ethics and Governance                                    | 8, 16              | - Palm Oil Industry Group              |
| 15. Currency Fluctuation   | -                  | - Suppliers/Contractors                |
| 16. Equal Treatment  | 5                  |  |
| 17. Grievance Resolution   | 16                 |  |
| 18. Plasma Development (for Indonesia)                               | 2, 12              |  |
| 19. Water Impacts  | 6, 9               |  |
| 20. Evaluation of Suppliers/Contractors' Sustainability Commitment   | 12                 |  |
| 21. Peat Development   | 13                 |  |
| 22. Pesticides and Chemical Usage                                    | 12                 |  |

\* Please refer to page 46 on United Nations Sustainable Development Goals (UN SDGs).

## Materiality Matrix







United Plantations Berhad supports the United Nations Sustainable Development Goals (UN SDGs)

### United Nations Sustainable Development Goals (UN SDGs)

UP respects and recognises the importance of its role in this global initiative. As such, the Group has mapped the relevant SDGs with each materiality topic and identified eight (8) UN SDGs with their specific targets that are most relevant to its business operations as well as key concerned materiality topic highlighted by the stakeholders.

For more information, please refer to our website, [www.unitedplantations.com/sustainability/](http://www.unitedplantations.com/sustainability/).

### Targets and Achievements

Our targets and commitments are what drives us to continuously improve. We subscribe to the mantra “what we measure, we can manage” and provide information on our progress of targets and achievements over a period of three years in the areas of Certifications, Biodiversity, Climate Change, Community, Employees, Legal Compliance and Economics amongst others.

As an example of our targets, we are aiming to reduce the carbon footprint per metric tonnes of NBDPO produced by 60% between 2004 and 2025. Tremendous progress has been made through investments in renewable energy such as biomass boilers and biogas plants which today have been introduced in all our palm oil milling operations. These steps amongst others have resulted in a commendable achievement whereby we, as of today, have achieved a carbon footprint reduction of 59% between 2004 and 2020.

Another example is our ambition to ensure that all Guest Workers have their own individual passport lockers for the safekeeping of their passports and personal documents. We have almost achieved this target and expected that the last three estates will have these facilities by 2021.

### Awards and Recognitions

In 2020, we were ranked 2nd out of 161 companies in the Plantations Sectoral award based on two financial performance indicators by the Edge Billion Ringgit Club:

- Highest Return on Equity over three years
- Highest Return to Shareholders over three years

We are also pleased to inform that all of our mills and estates have been successfully certified against the new RSPO P&C 2018 in 2020 except for our newly acquired plantation, Tanarata estate.

### UP and Sustainability Certifications

#### The Migros Criteria, ProForest and UP’s involvement in the RSPO

Whilst UP has focused on responsible agricultural production for generations, our formal journey towards being recognized as a certified producer of sustainable palm oil commenced in September 2003 when we were audited by ProForest and became the world’s first audited producer and processor of sustainability produced palm oil in accordance with the Swiss supermarket chain, Migros’ principles and criteria on sustainable palm oil.

Our entire oil palm plantations in Malaysia were successfully certified in accordance with the RSPO Principles and Criteria on the 26th August 2008 thus becoming the world’s first producer of certified sustainable palm oil.

UP’s role regarding the RSPO remain one of being active and in this connection, we are pleased to state that our Company was one of the initial palm plantations signatories to the RSPO in 2004. Shortly after the establishment of the RSPO, UP was a part of the initial stakeholders group involved in developing the principles and criteria to define sustainable palm oil.



In addition, our CED, Dato' Carl Bek-Nielsen is the Co-Chairman of the RSPO Board of Governors today representing the Malaysian Palm Oil Association's seat. He was elected to this position in November 2014 and has thereby actively participated in and helped to oversee important developments and decisions within the RSPO which now has over 5,000 members worldwide.

Our capability of supplying sustainably certified, traceable and high-quality palm oil and palm kernel oil is an important part of our commitment to customers. Our total RSPO certified and traceable quantity available based on own production was approximately 214,000MT of palm oil and 43,000MT of palm kernels in 2020 for our Malaysian and Indonesian operations.

For our Indonesian operations, UP/PTSSS have successfully obtained the certificate for the entire \*HGU area of 6,717.62 Ha in December 2019. The Time Bound Plan for the balance uncertified areas will be in tandem with the issuance of HGU certificates by the Government of Indonesia. This is expected to be obtained by 2023. (\*HGU refers to the certificate on land cultivation rights title issued by the Government of Indonesia)

For our Plasma scheme smallholders, the full certification is expected by 2023 subject to the issuance of individual land certificates by the local government.

In 2020, all of our estates and mills except our newly acquired plantation, Tanarata Estate have been successfully certified against the new RSPO Principles and Criteria 2018 which demonstrate a stringent compliance on No Deforestation, No New Planting on Peat regardless its Depth and No Exploitation of Workers and Local Communities (NDPE). Tanarata Estate is anticipated to conduct the RSPO Scope Extension Assessment before the end of 2022 (within three years from the date of acquisition i.e August 2019).

#### Supply outpacing RSPO certified demand

Whilst it is commendable that approximately 19% of the world production of palm oil is now certified by the RSPO, it is unfortunately still a fact that the global uptake of RSPO certified palm oil was 7,326,206MT or 50.1% of the supply volume of 14,609,915MT in 2020, thereby outpacing demand.

The RSPO certified oil not purchased will end up in the supply chain without being sold as certified sustainable palm oil-but just conventional palm oil sending a negative message to responsible growers worldwide.

It is, however, most pleasing that the concept of commensurate effort/shared responsibility has now been incorporated within the new RSPO P&C 2018, whereby the participation of the consumer goods manufacturers (CGMs) and retailers has led to a slight increase in the demand for RSPO certified products in 2020. More attention needs to be given to further raising the uptake of certified sustainable RSPO Palm oil by the CGMs and retailers taking a great hand of ownership.

#### Malaysian Sustainable Palm Oil (MSPO) Certification

The Malaysian Sustainable Palm Oil (MSPO) standard is a national certification standard created by the Malaysian Government and developed with input from stakeholders in the palm oil industry. We are pleased to announce that all of our mills and estates in Malaysia have successfully obtained the MSPO Certificates in August and September 2018.

We also anticipate to conduct and complete MSPO Scope Extension Assessment for our newly acquired plantation, Tanarata Estate by 2021. The documentations in compliance with MSPO requirements have been completed and good progress has been made in the upgrades of the infrastructures including stores and employee accommodation which are scheduled to be completed in 2021.

#### Indonesian Sustainable Palm Oil (ISPO) Certification

The Indonesian Government established a mandatory certification scheme in 2011, namely the Indonesian Sustainable Palm Oil Principles & Criteria (ISPO) to ensure that all producers within a few years will have to live up to certain standards when operating in Indonesia. We are pleased to announce that we have successfully obtained the ISPO initial certificate for the entire HGU area of 6,717.62 Ha in August 2019 and subsequent Annual Surveillance Assessments (ASA) are ongoing.

#### Sustainable Palm Oil Transparency Toolkit (SPOTT)

UP participates in the Sustainable Palm Oil Transparency Toolkit (SPOTT) assessment conducted by Zoological Society of London (ZSL). SPOTT is designed to measure the transparency of companies in public disclosures of best practices and sustainability commitments via the RSPO Annual Communication of progress (ACOP), RSPO New Planting Procedures (NPP) Public Notification, Company Annual/ Sustainability Report and Company Websites.

The key objectives of the SPOTT assessment are to promote industry transparency and accountability to drive the uptake and implementation of environmental and social best practices in high biodiversity impact sectors. United Plantations Berhad maintains an active engagement and commits to collaborate with the Zoological Society of London (ZSL) in the progress towards improving sustainability reporting and enhancing a greater transparency.

Our current status on SPOTT assessment as of November 2020 is 86.5% resulting in UP being ranked as number 4 amongst the over 100 assessed Global Oil Palm Producers and Traders.

For further details on SPOTT assessment for palm oil companies, please refer to SPOTT's website, [www.spott.org/palm-oil/](http://www.spott.org/palm-oil/)





Young oil palm seedlings with high yield potential being sent to the main nursery before field planting in another 9 months.



## Employees

The success and achievement of our Group is related to our employees, both past and present, who loyally through hard work, strong leadership, honesty and respect have committed themselves to serve and dedicate their career and livelihood at UP.

We promote a working environment where there is mutual trust and respect and where everyone feels responsible for the performance and reputation of our group as “No One at the top is stronger than the pyramid of people who support him/her.” We recruit, employ and promote employees on the sole basis of the qualifications and abilities needed for the work to be performed and meritocracy is a hallmark of our Group.

Our employees are the Groups’ core assets, without which the success and stability of UP would not materialise. We are committed to diversity and have an equal employment opportunity policy. Whilst we

actively promote the employment of women at UP, we also recognise that some work on our plantations is potentially more suitable for men due to the heavy physical nature of the tasks.

Male workers predominantly perform tasks such as harvesting fresh fruit bunches, crop collection and evacuation to the railway cages for transport to the mills, while women are assigned lighter work such as weeding, gardening and loose fruits collection. We provide crèches, playgroup classes and kindergartens at all operating sites to support our employees and their children.

### UP Group

#### Employees – Year 2018 to 2020

|  | 2020  | 2019  | 2018  |
|--|-------|-------|-------|
| UP Bhd                                     | 4,550 | 5,169 | 4,936 |
| Unitata Bhd. and UniFuji Sdn. Bhd.         | 291   | 304   | 282   |
| Butterworth Bulking Installation Sdn. Bhd. | 14    | 16    | 16    |
| PT SSS1, Indonesia                         | 1,243 | 1,355 | 1,274 |
| Total                                      | 6,098 | 6,844 | 6,508 |

#### Category of Employees (Malaysian) as at 31 December 2020

| Employee Classification | Gender Classification |        | Age Classification |       |     | Ethnic Classification |         |        |        | Total |
|-------------------------|-----------------------|--------|--------------------|-------|-----|-----------------------|---------|--------|--------|-------|
|                         | Male                  | Female | 18-30              | 31-50 | >50 | Malay                 | Chinese | Indian | Others |       |
| Directors               | 1                     | -      | -                  | -     | 1   | -                     | 1       | -      | -      | 1     |
| Management              | 110                   | 21     | 18                 | 74    | 39  | 26                    | 23      | 80     | 2      | 131   |
| Staff                   | 187                   | 138    | 62                 | 152   | 111 | 89                    | 7       | 224    | 5      | 325   |
| Workers                 | 542                   | 332    | 204                | 352   | 318 | 229                   | -       | 643    | 2      | 874   |
| Total                   | 840                   | 491    | 284                | 578   | 469 | 344                   | 31      | 947    | 9      | 1,331 |

#### Category of Employees (Other Nationalities) as at 31 December 2020

| Employee Classification  | Gender Classification |        | Age Classification |       |     | Ethnic Classification |           |          |        |             | Total |
|--------------------------|-----------------------|--------|--------------------|-------|-----|-----------------------|-----------|----------|--------|-------------|-------|
|                          | Male                  | Female | 18-30              | 31-50 | >50 | Others                | Indonesia | Nepalese | Indian | Bangladeshi |       |
| Directors                | 2                     | -      | -                  | 2     | -   | 2*                    | -         | -        | -      | -           | 2     |
| Management               | 13                    | 2      | 1                  | 10    | 4   | 2*                    | 13        | -        | -      | -           | 15    |
| Staff                    | 43                    | 12     | 13                 | 42    | -   | -                     | 55        | -        | -      | -           | 55    |
| Workers - PTSSS          | 910                   | 259    | 322                | 760   | 87  | -                     | 1,169     | -        | -      | -           | 1,169 |
| Guest Workers - Malaysia | 3,502                 | 24     | 1,372              | 2,107 | 47  | 6                     | 758       | 14       | 876    | 1,872       | 3,526 |
| Total                    | 4,470                 | 297    | 1,708              | 2,921 | 138 | 10                    | 1,995     | 14       | 876    | 1,872       | 4,767 |

\* Danish & British

Grand Total = 6,098

#### Summary of our Group’s employees gender mix

|                             | UP Indonesia (PTSSS) | UP Malaysia | UP Group |
|-----------------------------|----------------------|-------------|----------|
| Percentage Female Employees | 22.09%               | 10.60%      | 12.92%   |
| Percentage Male Employees   | 77.91%               | 89.40%      | 87.08%   |



## Code of Conduct and Business Ethics

A key element of UP's sustainability framework is our Code of Conduct & Business Ethics. We implement responsible and ethical business policies and practices in all aspects of our operation. The Government in line with its anti-corruption drive has announced that S17(A) MACC Amendment Act (2018) which came into force on 1 June 2020. To comply with this new enactment, the Code of Ethics & Governance Policy was reviewed and expanded to include all associated persons as defined under the Act. The changes were made under the Business Integrity and Corruption section of this Policy as follows:

UP has a zero-tolerance to fraud, bribery, and corruption and this applies to all dealings by our directors, employees, suppliers, consultants, agents and any persons associated with UP.

- UP as a responsible corporate citizen has been and shall continue to give scholarships and donations to deserving cases on the condition that this is not corruptly given as defined under Section 17 A(1) of MACC Amendment Act 2018. However, UP has a general policy of not giving political contributions to any political parties or candidates.
- UP does not prohibit the giving of meals and gifts in the course of business dealings as long as these are of reasonable value, not in cash and are not corruptly given.
- Corruption and bribery risk assessment was done and adequate procedures have been put in place to minimize the exposure to the Group. This risk like all other identified risks shall be periodically assessed and reported in the Statement On Risk Management and Internal Control.
- Directors and officers have been sent for training to familiarize themselves with S17A MACC Amendment Act (2018). In-house anti-bribery

training has been and will continue to be conducted in all operating units. Associated persons like contractors, agents, consultants, suppliers with bribery risks have been made aware and they have undertaken to comply with this Policy.

- The Internal Audit Manager has been appointed as the competent person responsible for anti-corruption compliance matters and he is to report all his findings on this area to the Chairman of the Audit Committee who is an independent director. The Chairman of the Audit Committee shall after deliberation at the Audit Committee report the findings to the Board.

In addition to the above, all directors and employees who are vested with approval authorities on purchasing or enter into trades are to declare in the Annual Conflict of Interest Statement their compliance with the section on Conflict of Interest under this Policy.

## Whistleblower Policy

We are committed to high standards of ethical, moral and legal business conduct. This policy aims to provide an avenue for employees, that they will be protected from reprisals or victimization for whistle blowing.

## UN Guiding Principles On Business And Human Rights

During the launch of The Malaysia Chapter of the UN Sustainable Development Solutions Network (UN-SDSN) in 2015, UP was mentioned as one of the sustainable development solution initiatives being undertaken in Malaysia. In the SDSN Malaysia Chapter, UP was identified as a "Business with a soul". This acknowledgement was indeed pleasing and indicated our commitment to being a leader in economic, environmental and social sustainability.

For more information on our Company Policies, please refer to [www.unitedplantations.com/sustainability](http://www.unitedplantations.com/sustainability).

## Human Rights Protection



### Guest Workers' Passport Locker

We have constructed rooms containing passports lockers within the plantations to enable our guest workers free access to their passports without any restriction.



### Minimizing the Financial Burden for Guest Workers

We are committed to ensuring that exploitation of our guest workers have no place in our business operations. We conduct assessments, interviews at the source countries and spot checks to identify gaps and potential risks within our operations and develop mitigation plans and provide remedial actions.



### Guest Workers' Verification by HRSS Department

The HRSS Team verifies each and every guest worker on arrival to ascertain the recruitment supply chain and expenses from respective source countries until the arrival in Malaysia. Appropriate translators are engaged on need basis during the interviews. This exercise is done to add credence for responsible sourcing within our supply chain.



*Guest workers make up more than 85% of the Malaysian Plantation industry. Without these dedicated and hardworking employees the industry would be crippled today.*

### Human Rights Policy

United Plantations Berhad is committed to the protection and advancement of human rights including prohibiting the use of child or forced labour wherever we operate. Our human rights policy is based on our core values on Safety and Health, Environmental Stewardship and Respect for people.

### Guest Workers Policy

We consider our foreign workers as guests and they are vital partners in our business along with our local workers. In 2020, we have revised our Guest Workers Policy to incorporate the key elements on human rights protection which include reimbursement of statutory recruitment fees, no withholding of passports, execution of employment contracts in the source countries, no withholding of wages and no penalty for premature repatriation.

### Recruitment Practices

In view of the COVID-19 pandemic outbreak, the Malaysian Government has frozen all recruitment avenues for guest workers as a precaution against imported cases of COVID-19. We are waiting for the new recruitment policy by the Malaysian Government, and upon its release we plan to establish call centres in the respective source countries. This will act as a bridge between the workers from villages to the main accredited recruiting agents in order to clarify the recruitment process, job scope at the plantations and conduct pre-departure briefings. This process will also minimize the risk of sub-recruiting agents charging additional recruitment costs on the guest workers.

### Paying fair wages and employees benefits

The average monthly earnings of our workers in Malaysia amounts to RM1,894 which includes productivity incentives and overtime. The minimum wage set by the Malaysian Government in 2020 was RM1,200. We practice gender equality policy on wages payment and remuneration for all our employees. For our Indonesian operations, the average monthly earnings of the permanent workers amount to IDR3,423,246 which includes productivity incentives and overtime. The minimum wage set by the Indonesian Government in 2020 was IDR3,047,533. The average earnings per workers per month are reflected in the table below.

|  | 2020         | 2019          | 2018          |
|--|--------------|---------------|---------------|
| Total Average Earnings per worker per month - UP Group Plantations (Malaysia)          | RM1,894      | RM 1,625      | RM 1,595      |
| Total Average Earnings per worker per month - UP Group (Indonesia) - Permanent Workers | IDR3,423,246 | IDR 3,561,489 | IDR 3,767,903 |
| Total Average Earnings per worker per month - UP Group (Indonesia) - Temporary Workers | IDR3,279,475 | IDR 2,968,447 | IDR 3,276,675 |

### Guest Workers Repatriation and Leave

With 85% of our workforce being guest workers, there is a frequent turnover of employees within our Group. We strongly promote freedom of movement which can be seen in the table below. During 2020, 368 guest workers were repatriated upon completion of their employment tenure. Another 306 guest workers went back on leave to their respective home countries but only 58 managed to return to UP before the travel restrictions were introduced. Of the balance 248 guest workers, 224 are now waiting to return upon approval from the Malaysian Government.

| Repatriation and Leave during the year    | 2020  | Total number of guest workers (%) |
|---|-------|-----------------------------------|
| Total number of guest workers             | 3,256 | 100                               |
| Repatriation                              | 368   | 11.30                             |
| Gone on leave                             | 306   | 9.40                              |
| Gone on leave and returned                | 58    | 1.78                              |
| Gone on leave and didn't/ couldn't return | 248   | 7.62                              |

### Freedom to form a Union

Our staff and workers have the right to form and become members of labour unions on a voluntary basis and they are through these unions free to carry out collective bargaining as permitted under Malaysia and Indonesia laws.

| UP Group (Malaysia)   | 2020 | 2019 | 2018 |
|---|------|------|------|
| % of staff as members of All Malayan Estates Staff Union (AMESU)        | 74   | 74   | 76   |
| % of workers as members of National Union of Plantations Workers (NUPW) | 15   | 15   | 16   |
| % of workers as members of Food Industry Employees' Union               | 56   | 39   | 45   |
| UP Group (Indonesia)  | 2020 | 2019 | 2018 |
| % of workers as members of Union*                                       | 6    | 6    | 6    |

*\*In Indonesia, the union committee has been re-established and membership drive is in progress.*





An aerial view of Charong (Chawang & Erong) Estate and its housing, seen fully integrated with the office complex and social amenities such as a community hall, creche, clinic, water treatment plant, shop houses, mosque and a temple.

We conduct regular briefings on our Human Rights Policy for all employees to raise awareness on freedom to join or form trade union.

#### Mars Supplier Human Rights Advance Programme

It is important to acknowledge that running a business today requires a greater level of transparency compared to before. What a few years ago may have been considered to be enough is no longer adequate. Companies therefore have a choice: To continue with status quo and gradually move towards fossilization or to adapt to the changing business environment and consumer requirements shaping the landscape for tomorrow's demand. In UP we have chosen the latter

option and amongst other initiatives we have embarked on a strategic collaboration with Mars supported by Verité and Arche Advisors to address current sustainability gaps. We look forward to participating on this partnership journey with a common goal of transparently improving safety and human rights gaps within our supply chain.

#### Social Commitments and Social Amenities

UP is committed towards providing quality housing and social amenities and maintaining the highest possible welfare standards for the families of our workforce. Improving and providing social amenities remains very much a hallmark within our Group, and

#### Social Commitments of the Group

|  | 2020<br>RM        | 2019<br>RM        | 2018<br>RM        | Grand Total RM    |
|--|-------------------|-------------------|-------------------|-------------------|
| Hospital & Medicine for Employees, Dependents & Nearby Communities     | 2,464,774         | 2,443,905         | 2,424,918         | 7,333,597         |
| Retirement Benevolent Fund *   | 692,500           | 460,656           | 531,338           | 1,684,494         |
| Education, Welfare, Scholarships & Other                               | 247,273           | 323,408           | 298,841           | 869,522           |
| Bus Subsidy for School Children  | 132,354           | 169,244           | 206,377           | 507,975           |
| External Donations   | 539,806           | 119,735           | 127,359           | 786,900           |
| New Infrastructure-Road, TNB and Water-Supply for domestic use         | 1,138,072         | 1,510,388         | 772,903           | 3,421,363         |
| Employee Housing   | 6,828,433         | 4,510,135         | 7,134,389         | 18,472,957        |
| Infrastructure Projects, Buildings, Community Halls, Places of Worship | 584,829           | 1,678,719         | 2,508,547         | 4,772,095         |
| Provision of Social Amenities  | 5,416,182         | 5,975,262         | 5,158,811         | 16,550,255        |
| <b>Total</b>   | <b>18,044,223</b> | <b>17,191,452</b> | <b>19,163,483</b> | <b>54,399,158</b> |

\* The above payments are in addition to the regulatory contributions by the Group to the Employees' Provident Fund, Social Security Contributions and other benefits.

continuous improvements were made during 2020 to provide our workforce with the best possible facilities which are significantly above the latest amendments to the Employees' Minimum Standards of Housing, Accommodations and Amenities Act 1990.

For babies and young children UP continues to provide and maintain crèches for personalised childcare thereby ensuring that employees are comfortable about their children while at work.

Today, our Group has 9 Primary Schools and 7 Kindergartens which are maintained by the Company, providing education for more than 500 children ranging from age of 5 to 12 years. Bus subsidies for school children above the age of 12 years old are also provided for. Places of worship for our employees, Group Hospitals & Clinics and an Old Folks' Home to care for the aged and the homeless as well as a fully operational Danish Bakery are also a part of UP's care and commitment towards the wellbeing of its employees.

In addition, 26 scholarships were granted to children of our employees during 2020 thereby enabling these students to pursue their tertiary studies.

For more information of our social amenities, please refer to our website, [www.unitedplantations.com/sustainability/](http://www.unitedplantations.com/sustainability/).

### Training and Development

In UP our human capital is indispensable and our approach is "Reach and Teach" as well as "Reach and Remind". Training schedules are prepared for our employees annually in the respective Estates and other Departments to ensure that the various trainings are being carried out on a regular basis throughout the year.

This is monitored and verified internally by the HRSS team and also through external auditors during RSPO/MSPO/ISPO annual audits. As for Staff and Executive levels, trainings are generally conducted on a group basis. These trainings cover Occupational Safety & Health, Human Rights, Best Agriculture & Management Practices, Industrial Laws and other relevant topics for our employees and stakeholders including our neighbouring communities.

The competence and skills of the Group's employees are the main contributors to Operational Success. This, undoubtedly, also helps them to enhance their capabilities and build capacity. Life-long learning, through training programme, conferences and seminars which are relevant to the Group's businesses are identified on an ongoing needs basis and the Company allocates a dedicated training budget to support the continuous development of our employees.

### Occupational Safety and Health

We are committed to securing the safety and health of all our employees at work and strive to maintain a safe and healthy working environment for our employees, contractors, visitors and local communities throughout our operations.

We value our workplace safety and health as being of paramount importance for all our employees and our respective Managers/Heads of Departments are responsible in implementing and complying with this policy.

For further details on our Occupational Safety and Health Policy, please refer to our website, [www.unitedplantations.com/sustainability/](http://www.unitedplantations.com/sustainability/).

### Fatal Accident Rate (FAR)

During 2020, the Group regrettably experienced two fatal accidents in UP Malaysia and another two in UP Indonesia. The fatalities in UP Malaysia involved an employee falling from height, and a confined space related work incident. In UP Indonesia, the two fatal accidents happened while awaiting transport to return home, as one employee fell into a river and the other employee trying to rescue him resulting in both of them drowning. Such accidents are most unfortunate and deeply regrettable, and our hearts go out to their bereaved families for their loss.

The Group is determined to continue to mitigate all safety risks through robust safety programmes and preventive intervention. Our Group will further improve and continue its regular in-house training programmes combined with impromptu safety audits in our mills, estates and refineries through our "Reach and Teach" and "Reach and Remind" initiatives. In line with our approach of preventive measures as a way of providing safe workplaces, we continuously conduct HIRARC on all our operations to raise the level of awareness on safety. The Company has recently established a dedicated Safety Division under the Human Resources, Sustainability and Safety (HRSS) Department to strengthen its commitment. As mentioned earlier, two additional safety officers and one safety supervisor have been recruited and we are in the midst of recruiting one more safety officer. Our common goal on safety must be "one accident is one too many".

#### Fatal Accident Rate (FAR per 1000 employees)

|                        | 2020 | 2019 | 2018 |
|------------------------|------|------|------|
| Malaysian operations   | 0.39 | 0.56 | 0.19 |
| Indonesian operations* | 1.41 | 0    | 0    |

\*The difference in FAR between our Malaysian and Indonesian operations is due to smaller population size in our Indonesian operations.

### Lost Time Injury Frequency Rate (LTIFR)

In 2020, more than 50% of accidents involved harvesting operations (thorn pricks, debris falling into eyes, cutting stalk, fronds falling on body) while the balance are commuting accidents, workshop, fall from height, factory operations, tractor and lorry related, slipped and fall and general works related.

#### Lost Time Injury Frequency Rate (LTIFR per million hours worked)

|                        | 2020   | 2019   | 2018   |
|------------------------|--------|--------|--------|
| Malaysian operations   | 8.31   | 8.27   | 6.56   |
| Indonesian operations* | 117.20 | 148.63 | 110.06 |

\*The difference in LTIFR between our Malaysian and Indonesian operations is due to 8 working hours per day for Malaysia while 7 working hours per day for Indonesia.





Our jungle reserve at Lima Blas Estate. UP places strong emphasis on conservation of jungle reserves and promoting green corridors.



## Environment



UP is committed to being a leader in sustainable agricultural practices and is aware of the footprint it leaves on the environment and our Group therefore constantly strives towards reducing variables that impact the environment negatively. We strictly adhere to No Deforestation and No New Development on Peat soils regardless of its depth since 2010 and focus on the reduction of GHGs, energy, water and waste in line with the concept of the circular economy as a vital part of our environmental policy.

Global plantation development has contributed significantly to economic development and prosperity. However, deforestation and other unsustainable practices have many negative consequences for people and the environment, and our Group is therefore fully committed to protect forests, peatlands, and human and community rights.

As an important part of our sustainability journey, we work closely with other growers, suppliers, contractors, processors, NGOs, Brand manufacturers and other industry stakeholders to take part in transforming the industry as well as creating further awareness on the importance of sustainable palm oil production.



*The colourful white-throated Kingfisher, commonly seen as one drives along our fields.*

In addition to our focus on continuous improvement to minimize waste and our overall carbon footprint we are committed to the Principles and Criteria of the RSPO, MSPO and ISPO. Our Group has through investments and a dedicated Group Sustainability Committee introduced policies to break the link between palm oil and deforestation and strictly adhere to No Deforestation and No New Development on Peat soils regardless of its depth and No Exploitation of People and Local Communities (NDPE) which is embedded in our Environment and Biodiversity as well as Human Rights Policies.

Key points of our Environment and Biodiversity Policy are summarized below and for further details please see the sustainability section on our website, [www.unitedplantations.com/sustainability/](http://www.unitedplantations.com/sustainability/).

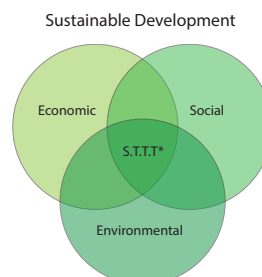
In addition, we have strengthened High Conservation Value (HCV) assessment by combining them with High Carbon Stock (HCS) assessment and Land Use Change Analysis (LUCA) for new plantings in 2014 and strive to maintain an open and dynamic approach towards continuous improvements in respect of protecting Peat soils, HCV, HCS and other fragile areas.

We conduct our operations under the best principles of agriculture and are committed through our more than 7,500Ha of conservation areas to promote biodiversity and protection of the natural environment within our group.

Key environmental milestones achieved are as follows:

- Zero-burn policy (1989)
- No primary forest clearing policy (1990)
- No bio-diesel production/supply policy (2003)
- Methane capturing facilities introduced (2006) and all mills equipped with methane capturing facilities (2018)
- HCV assessment introduced (2007)
- LCA on Palm Oil production completed in (2008) with annual updates since then
- No Deforestation, No new development on High Conservation Value (HCV) areas and No new development on peat soils regardless of its depth (2010)
- Total phase-out of Paraquat (2010)
- HCV combined with HCS assessments and LUCA for new plantings (2014)
- Total phase-out of Class 1A/1B chemicals (Monocrotophos/Methamidophos) (2020)

Our employees, contractors, suppliers, trading partners and stakeholders are expected to adhere to this policy and thereby focus on sustainability within our supply chain based on transparency, traceability and trust.



\*Sustainability through Transparency, Traceability & Trust

### Environmental Commitments of the Group

|   | 2020<br>RM | 2019<br>RM | 2018<br>RM | Grand<br>Total |
|---|------------|------------|------------|----------------|
| Environmentally Friendly Operational Activities   | 5,817,120  | 6,416,803  | 6,680,501  | 18,914,424     |
| Environmentally Friendly Projects<br>(Biogas, Biomass, others)  | 443,185    | 328,883    | 1,577,752  | 2,349,820      |
| Biodiversity & Conservation<br>(Forest reserve, Endangered Tree Species Projects,<br>Collaboration with Copenhagen Zoo) | 923,167    | 1,021,791  | 758,797    | 2,703,755      |
| Total   | 7,183,472  | 7,767,477  | 9,017,050  | 23,967,999     |





*A riparian reserve along the Bernam River which is an important habitat for a rich array of flora and fauna.*

#### Partnership, Biodiversity & Conservation



Conservation of jungle reserves and wildlife sanctuaries as well as promoting green corridors are examples of our commitment to the environment. To date, United Plantations has set aside more than 7,500 Ha of land for conservation purposes representing approximately 15% of our total planted area in order to encourage biodiversity and wildlife on our estates. In Indonesia, UP has set approximately 40% of its land concession for the purpose of conservation.

Riparian reserves are maintained to preserve flora and fauna, provide wildlife corridors, ensure water quality and prevent erosion. In order to develop effective conservation strategies, we need the assistance of experts in these fields who have established a series of collaborations and partnerships. One such partnership is Copenhagen Zoo (CPH Zoo) which was initiated in 2007 and officially established on 1 October 2010, through a Memorandum of Understanding (MOU) between UP and CPH Zoo. It marked an important milestone for the Company's target of producing certified sustainable palm oil in Indonesia and being able to document the environmental integrity of its Indonesian operations.

#### Biodiversity Department

In order to better manage our large conservation areas, UP set up its Biodiversity Department (BioD) in 2011 under the purview of Dr. Carl Traeholt, our Group's Chief Environmental Advisor.

The Biodiversity team consists of a Division manager with solid natural resources management experiences, supported by five subject specialists and five field staff. This is supplemented by additional contract-workers

when the need arises. The team is responsible for mainstreaming environmental concerns into standard operational procedures and focus on activities primarily within the following areas:

- Biodiversity (Fauna and Flora)
- Habitat and Ecosystem
- Forestry and rehabilitation
- Hydrology and Limnology
- GIS and Mapping
- Integrated Pest Management
- RSPO and ISPO
- Protection and Monitoring
- Community Outreach

One of the key components in making the BioD a success which is our common goal was to develop internal capacity to manage and conserve UP's ecological resources, and to make first-hand information about biodiversity assets easily available. This is possible with the current BioD headed by Dr. Carl Traeholt, our Group's Chief Environmental Advisor and Mr. Muhd Silmi, Manager BioD and their team including essential topic specialists, such as a limnologist, a forester/botanist, zoologist, herpetologist and database officer. These subject specialists are supported by two chief rangers and a number of ranger assistants, as well as a native tree nursery manager.

#### Biodiversity Department's activities

Since 2011, the BioD had undertaken an impressive amount of activities in support of the company's commitment of producing sustainable palm oil and conserving the natural environment. In the past, many exciting activities and accomplishments have been reported. For example, the Biodiversity Division has

worked with leopard cats, *Prionailurus bengalensis*, as predator of rats to replace the environmentally detrimental chemical control.

The work with the Sumatra cobra (*Naja Sumatrana*) and king cobra (*Ophiophagus Hannah*), the world's largest venomous snake has not only produced some amazing results, it has also attracted one of the world's best known and respected herpetologists, Romolus Whitaker, who continues to grace UP/PT SSS in Kalimantan and offer support and capacity building.

The Biodiversity Division has also undertaken numerous camera trap surveys, bird and tree surveys to document the biodiversity within the company's conservation areas. The BioD has recorded many of Borneo's endangered species to date, among them Asia's only great ape, the orangutan, *Pongo pygmaeus*.

While these are exciting and inspiring stories about exotic species, the BioD is far more than that. An entire host of other activities commenced right from the modest beginning in 2011, including developing a GIS database that incorporates literally all the team's recorded data, be it from camera trap pictures, radio-tracking locations, number of tree seeds collected, time and place of illegal logging or recovery of aquatic fauna. Most of these stories can be found on our website.

#### Biodiversity activities during 2020 in PT SSS

In 2020, the emergence of and rapid spread of the COVID-19 affected almost every country on earth. Domestic and international travels were put on hold, and countries went into lockdown across the world causing

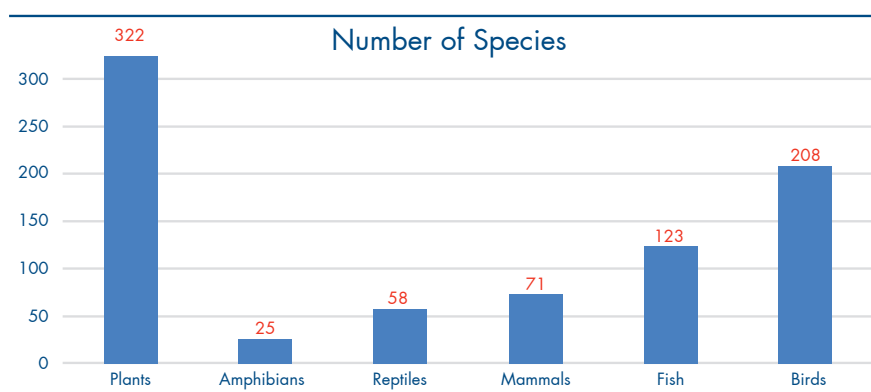
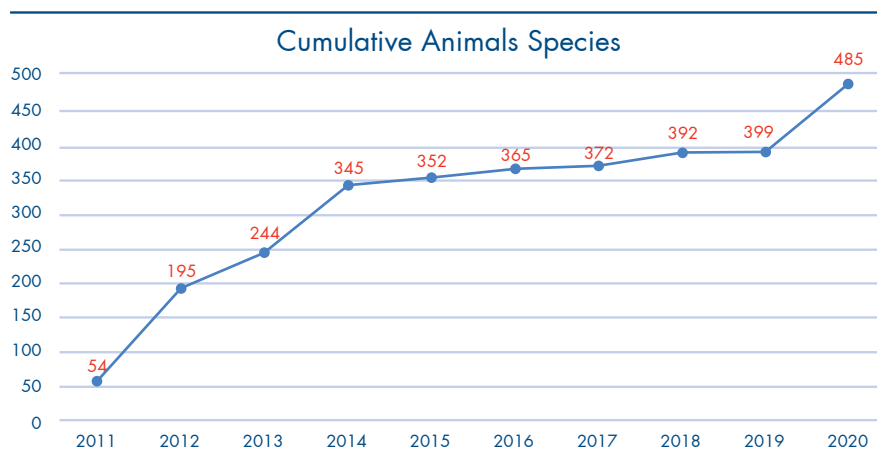
delays in trade, services and manufacturing output. Despite the hard times, our BioD Division continued to work near normal capacity throughout 2020.

The Division continues to focus on wildlife conservation and management within the UP/PT SSS landbank, to further enhance environmental focus throughout the operations in line with the company's goals of producing sustainable palm oil. While many urban based activities have been hit hard by COVID-lockdown, the BioD team was less affected, because most activities took place in conservation areas with few other people present.

During surveys, the team encountered very few humans, but fortunately a lot of biodiversity, which meant that the team could continue to carry out its duties without compromising the company's COVID-19 safety protocols.

The number of vertebrate species recorded in PTSSS continued to increase in 2020. To date, the BioD has recorded a total 485 different vertebrate species, consisting of 71 mammal species, 208 bird species, 58 reptile species, 25 amphibian species and 123 fish species. In addition, 322 plant and tree species were identified in PT SSS' conservation areas. The total number of species is expected to increase significantly in the future when more surveys are completed with the maturing of rehabilitation areas.

In summary for year 2020, the team added a total of 86 new species to the list, consisting of 10 reptiles, 3 mammals, 45 fishes, 3 amphibians as well as 25 birds. This is the highest number of new annual addition recorded in PT SSS.







The seed (reddish color) on a *Shorea balangeran* of the Dipterocarp family. The species has suffered greatly from excessive logging and is now listed as *Vu* on IUCN's Red List.



Growing fig trees in coconut husk in our tree nursery. The coconuts with the fig seedling are positioned approx. 1.3 meter above ground to trigger root setting and growth.

### Rehabilitation activities

The BioD division continues to monitor the diversity of birds in Field 86 rehabilitation area. This is to gauge if rehabilitation efforts deliver the expected results. We had chosen to monitor understory bird species, because these are very sensitive to habitat disturbance, relying mostly on dense tree canopies for their daily activities. Due to these variety of birds being elusive in behavior, we use mist nets for bird capture, a process that commenced in 2015 and has been repeated annually using the same method every year.

In 2020, the BioD team recorded four new species in the area resulting in the cumulative number of bird species continuing to increase. To date, a total of 32 bird species have been recorded from the area, which is an incredible positive trend and a strong evidence that rehabilitation actually works, even for many sensitive species. The BioD team is proud to document this positive trend and aim to continue the effort until Field 86 is considered "rehabilitated".

In addition to birds, a few trees in the Dipterocarp family (*Shorea balangeran*) set their first fruit (seeds) in 2020. This is a marvelous milestone that began 10 years ago with harvesting initial seeds, propagating them in nurseries, outplanting the seedlings, caring for the seedlings until they have become large enough to grow on their own. What is equally important is that *Shorea balangeran* is considered a rare species today and listed as "vulnerable"

on the IUCN Red List due to overharvesting of it for its valuable timber. The long conservation process also contributes far beyond the boundaries of PTSSS, as Field 86 will become an important "seedbank" for future natural seed dispersal, an ecological process that is incredibly important for "natural" rehabilitation in other relevant areas.

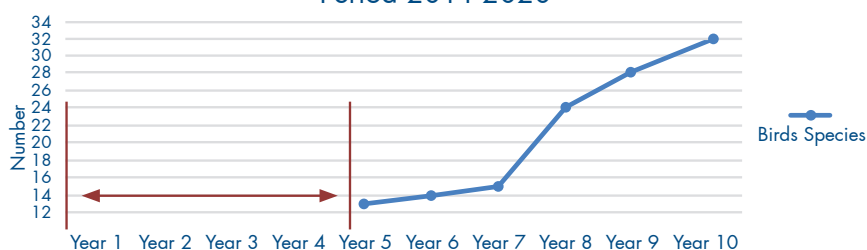
### Efforts to propagate jungle tree seeds for our rehabilitation activities

Propagating native Borneo fruit trees has been the main challenge pursued by the team in our nurseries in Lada and Runtu Estate. These trees are very important for the rehabilitation as they will be providing food sources for a lot of animals in the conservation areas of PTSSS. At the onset of rehabilitation 10 years ago, the main goal was to plant fast growing species to create a level of canopy to prevent excessive soil erosion and subsequent loss of minerals and nutrients.

At this point in time, the BioD team has begun to either add or replace existing trees with fruiting trees, thereby enriching the forests to the benefit of wildlife. During 2020, we planted 18,075 jungle trees in our rehabilitation areas with an additional stock of 18,614 seedlings in our nurseries.

In 2020, we prioritized to propagate fig species that are attractive for many bird species as well as primates. Some species are considered "strangler figs" and is named for

Cumulative Curve of Birds Species Recorded in Rehab Areas  
Period 2011-2020



The diversity of understory birds in Lada Estate, Division II, Field 86 was set aside for rehabilitation 10 years ago. The steady annual increase in the number of understory bird species is the result of dedicated effective rehabilitation efforts that show real and positive changes. We will continue to work on restoring this area to its natural condition and are optimistic of further species enhancement in the years to come.



*Ikan Sumpit (Toxotes jaculatrix)*

their pattern of growth upon host trees, which often results in the host's death after 150-200 years. Although fig trees can easily be propagated from a pot, their seeds are eaten by birds and often defecated onto branches of host trees, where they sprout by setting out roots that will eventually reach the ground. To accelerate this otherwise long process, we propagate fig trees on coconut husk that is then deployed on a host tree in a conservation area. At the time of writing, we have 500 fig trees on coconut husks in our nursey ready to be "planted" in a conservation area. The BioD team has also setup a sample plot where trials are made concerning which propagation technique is most effective, including different kinds of host trees.

#### Fish survey in conservation areas

In 2020, BioD conducted extensive fish survey in three types of habitat i.e. peat, brackish and fresh water bodies that form part of the river and lake systems in PT SSS conservation areas. This survey added 45 new fish species to an already extensive species list. To date, the BioD team has recorded a total of 123 species of fish in PT SSS conservation areas and, while this is in itself impressive, the team expects the number to increase when more intensive surveys are undertaken in the near future.

The BioD team is very pleased with the high fish species diversity in PTSSS' water bodies, as it reflects that plantation activities have improved significantly in the management of fertilizer and pesticide application, as well as the mitigation actions put in place to prevent contamination of the estates water ways.



*Ikan Kerandang (Channa pleurophthalmas)*



*Ikan sengiringan (Mystus singaringan)*

Some of the fish recorded are commonly used by local communities as diet supplements as well as alternative household income by selling their catches or part there of at the local market. The positive impact of PTSSS' conservation areas on local community livelihoods cannot be underestimated. As long as the areas remain well managed and protected, they become refuges for many fish species and are important spawning grounds for many species, thereby becoming sources that can continue to supply fish to water bodies in and beyond the property of PTSSS.

#### First sighting of endangered species Irrawaddy Dolphin

During the 2020 fish surveys, the BioD team had the extreme fortune of sighting an Irrawaddy dolphin (*Orcaella brevirostris*) foraging in the Jergendul river, a tributary to the Kumai river. This rare creature is listed as "Endangered" on the IUCN Red list. The dolphin was actively foraging for fish at the edge of the mangrove conservation area along Jergendul river, Lada Estate Division II. Lada Estate's mangrove conservation area measures approximately 1,100 Ha, which is an important fish spawning ground, especially due to its closeness to the sea.

For dolphins to forage in rivers at Lada estate is another testament to how the integrated estate management and conservation is producing positive conservation results. The Irrawaddy dolphin is both the largest mammal species and species in general recorded in PTSSS' properties, and the BioD team is delightful over this sighting and to realize that this endangered species utilizes our mangrove conservation area.



*Ikan Patung (Pristolepis fasciata)*





The Irrawaddy Dolphin (*Orcaella brevirostris*) foraging in Jegundul river along the edge of the mangrove conservation area in Lada Estate.

### The elusive Bornean ground cuckoo

The elusive Bornean ground cuckoo, *Carpococcyx radiceus*, is a large terrestrial species of Cuckoo in the family Cuculidae. It is endemic to the island of Borneo and generally widespread across the island's humid forests. Unfortunately, large parts of its preferred habitat are being lost from extensive agricultural and urban development activities and, from being common in the past, it is now listed as "Near Threatened" on the IUCN Red List and is only recorded in "good natural habitat".

The species has been recorded occasionally in PT SSS' conservation areas, where it forages the forest floor for insects and fruits, often following feeding frenzies of bearded pigs, *Sus barbatus*, and Malayan sun bear, *Ursus malayanus* commonly found in our conservation areas. The species remain elusive and poorly known and its respective habitat have become a top priority for conservation managers across Borneo.

### Saving critically endangered species

Fishing has always been a very important livelihood component to local communities. Despite the loss

of traditional natural fishing grounds from excessive urban and agricultural development activities, fishing continues to contribute to community livelihoods in communities neighboring PTSSS. With our conservation areas often the only natural habitat left in a sea of agricultural and urban landscape, conserving these areas has become even more important.

Concurrently, with the loss of natural habitat surrounding PTSSS, the pressure to utilize resources in PTSSS' conservation areas has increased significantly during the past decade. This has put increasing resource demands on the BioD team to patrol and manage the areas sustainably and as safely as possible. The team understands that no amount of patrolling and fencing can keep hungry humans out of the area and while "trespassing" into private property is illegal, it is unrealistic to keep local communities from using some of these resources.

Therefore, the BioD team has taken an integrated approach, where communities are generally allowed entry for subsistence purposes, provided they comply with "sustainability rules" set out by the BioD team. These rules prohibit, for example, fish bombing, using fish poison, logging and hunting. In certain areas, the

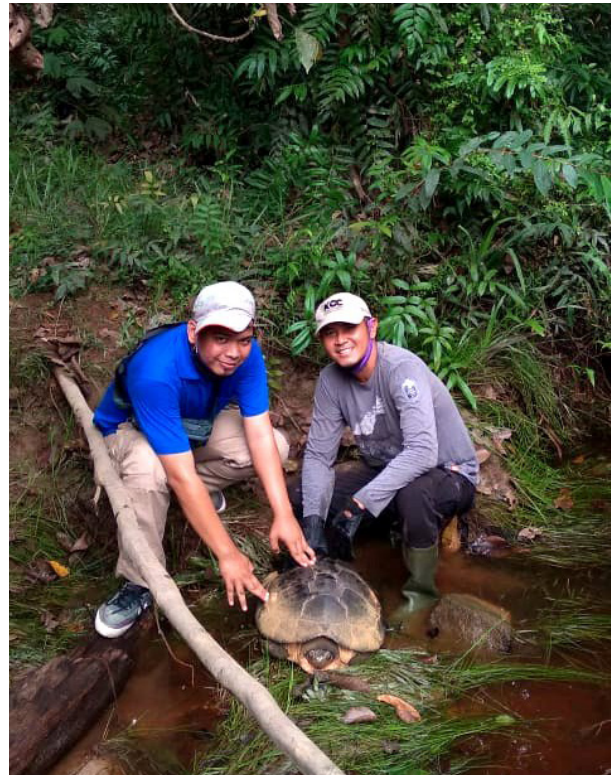


The Bornean ground cuckoo, *Carpococcyx radiceus*, recorded by camera trap in PT SSS' conservation area.





The Malaysian giant turtle, *Orlitia borneensis*, that was rescued from an illegally deployed line and hook.



use of fish nets is also prohibited, and during extreme dry periods, areas may be temporarily closed due to the high risk of causing bush fires.

In general, this approach has worked well and the BioD has built up a very good relationship with many adjacent communities which is an important factor that translates positively to the rest of PTSSS management. There is, of course, always a risk of “bad apples in the basket” and illegal activities and unwanted incidents happen simply due to violating the BioD rules and/or by pure chance. One such cases involved a regular fisherman who accidentally hooked a Malaysian giant turtle (*Orlitia borneensis*). This is an extremely rare and fully protected species in Indonesia and listed as “Critically Endangered” on the IUNC Red List.

There are only a few large reproductively mature individuals left in the wild and nesting grounds are few and far in between. There is a very high risk that this ancient species will be functionally extinct within the next two decades and the presence of a mature individuals in PTSSS’ conservation areas is akin to finding conservation gold. A fishing method that BioD prohibits is deploying line and hook overnight.

The reason for this is that it often results in the injury or deaths to species like turtles, otters and water birds, usually by drowning. Although the fisherman knew he had broken the rule, he reported the incident of having captured the Malaysian giant turtle instead of selling it for a very high price on the black market. The turtle’s flesh is very highly sort after both locally and in China. Quick response by the BioD team unhooked the turtle, treated the minor wound and released it back into its habitat.

### Orang Utans and their babies

Despite the relatively extensive conservation areas in PTSSS(7,500Ha), it remains too small to sustain genetically viable orangutan populations. However, it provides sufficient habitat for a number of individuals to thrive as well as reproduce actively in the area as long as they are left undisturbed. From the onset, PTSSS implemented a “no kill” policy of orangutan and did not consider them as a pest for the plantation. And, the positive conservation results of this strategy are emerging now.

For the past 10 years, the BioD team has conducted regularly awareness programmes internally with company employees as well as externally with communities who live adjacent to our conservation areas. Company staff and communities are aware of not disturbing orangutans when they encounter this animal. The result is positive i.e. there has been no reported conflicts with orangutans in neither PTSSS conservation areas nor inside the plantation land.

Whilst this is extremely positive, more focus on orangutan will be afforded in the near future, because orangutan conservation management in fragmented habitat requires habitat enrichment, landscape connectivity and possibly either reintroduction or replacement of a number of individuals to ensure genetic diversity and resilience. Only then, when such processes are undertaken smoothly in collaboration with the local authorities, will it be possible for our BioD to report “successful orangutan conservation accomplished”.

The BioD have continued to record and monitor orangutans. Whereas we have yet to capture on camera a picture of a large breeding male, we know that they



must be around. The reason for this is that, almost every year the team has recorded a female orangutan with a baby. The fact that both mother and baby on the pictures appear healthy is a good sign, since it provides evidence that PTSSS' conservation areas are home to

reproductively active orangutan population(s). The BioD team will be focusing on habitat enrichment activities and, together with the local authorities, attempt to secure connectivity between, particularly, Tg Puting national park and PTSSS' Kumai Estate.



2012



2015



2016



2017



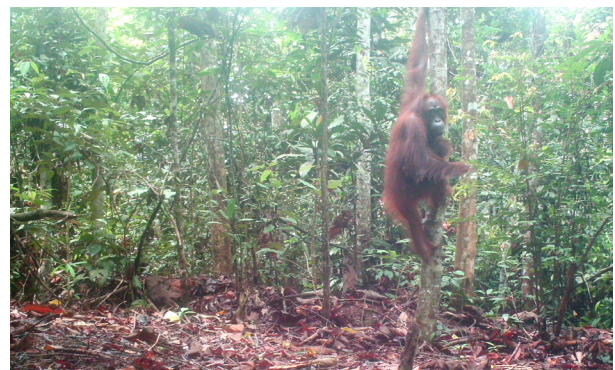
2017



2018



2019

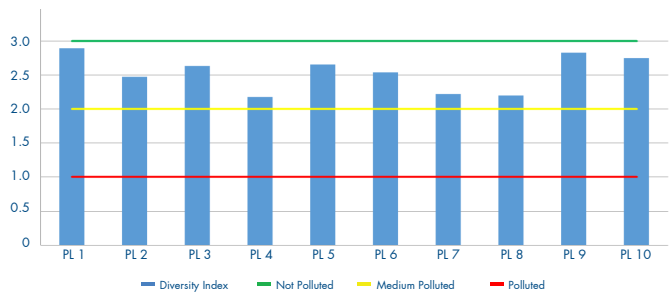


2020

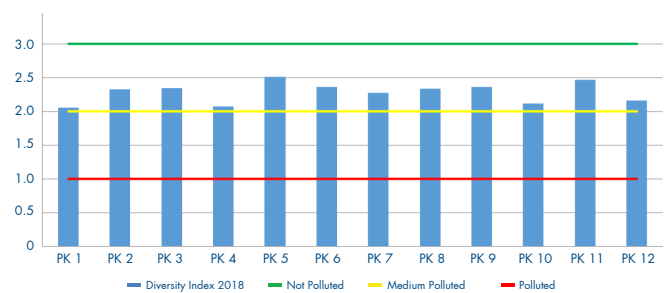
*Female orangutans with babies have been recorded on camera traps as well as photographed directly with handheld cameras in 2012, 2015, 2016, 2017, 2018, 2019 and 2020. All pictures are from Runtu Estate's conservation area, however, orangutan presence are also frequently reported in the conservation areas of Kumai Estate.*



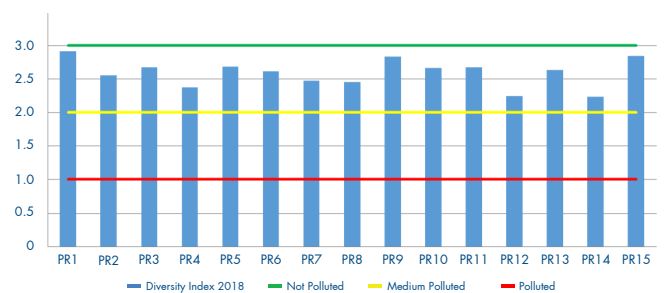
Diversity Index in Lada



Diversity Index in Kumai



Diversity Index in Runtu



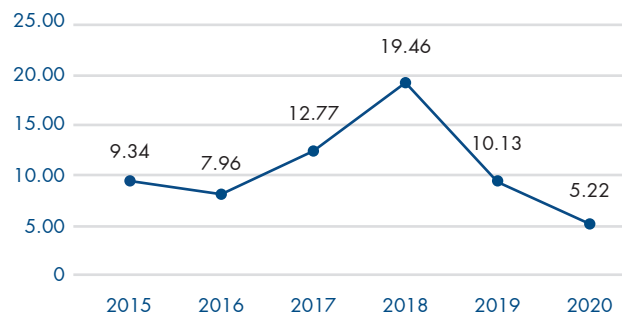
Freshwater plankton diversity in Lada, Kumai and Runtu estates in its indicator of water quality.

### Monitoring bio-indicators in various water bodies

Streams, rivers and wetlands in and around PT SSS land areas play important roles in supplying both humans and wildlife with ecosystem services. The diversity of water plankton is often neglected in general conservation efforts, but they happen to be one of the best bio-indicators for water quality. This is mainly because they form one of the most fundamental lower part of the food chain that almost all other living creatures are dependent on. A good plankton diversity is a sign of good diversity of other species too, which in turn can be used to predict an area's ecological health.

The BioD team has monitored plankton diversity in Lada and Kumai estate and use it to evaluate water quality. As of today, 106 species of plankton have been recorded to live on the surface water, indicating that the water quality in Lada, Kumai and Runtu Estates can be considered slightly polluted. Whereas this is considered "good" in a plantation context, the BioD will strive to reach a "not polluted" category in the future. Meanwhile, more work needs to be done to identify the potential source(s) of pollution and/or residual ecological factors from the original land preparation activities.

Relative Abundance Indices



### Leopard cat monitoring

Since 2015, the BioD team has monitored leopard cat population in Lada Estate, using 40 units of camera traps deployed in an 800 x 800meter grid system. In the first three years, the relative abundance of leopard cat increased peaking in 2018, however, in 2019 and 2020 data showed a significant drop with 2020 being the lowest on record.

Whereas it is not yet clear what has caused this downwards trend, it appears too significant to be simple statistical variation. It may be caused by dry season forest fires, decreasing habitat suitability, higher predator pressure (e.g. illegal hunting, increasing population of pythons), drop in prey density (e.g. chemical treatment of rats), diseases and/or other reasons. Nevertheless, leopard cat population continues to be high, with at least 2-4 individual/km<sup>2</sup> compared to natural forest habitat (less than 1 individual/ km<sup>2</sup>).

The BioD team already knows that leopard cats are very effective rat predators. Rats constitute almost 75% of the leopard cats diet and an adult cat will often consume 2-3 rats per day.

A significant drop in prey availability, or a significant increase in predator pressure are the most common causes that can alter a predator's population density. The BioD team has observed active Empty Fruit Bunch treatment in the study area that could easily cause disturbances and a temporary drop in the cat population. In addition, the number of reticulated python, *Malayopython reticulatus*, appear to have increased significantly.

Pythons are the most significant predator of adult leopard cats and they will do their best to avoid contact if possible.

In 2021, the BioD will set up a comparative study to assess what may have caused the drop in leopard cat population. Hopefully, this biological controller of rats can be restored to its full potential.

**Dr Carl Traeholt**

UP Group Chief Environmental Advisor

**Mr. Muhd Silmi**

Manager Biodiversity Division





Various types of wildlife photographed by our BioD Department.



## Deforestation

UP strictly adheres to No Deforestation and No New Development on Peat soils regardless of its depth and No Exploitation of People and Local Communities (NDPE) which is embedded in our Environment and Biodiversity as well as Human Rights Policies. Through our more than 7,500 Ha of conservation areas we contribute to the protection of critical ecosystems and biodiversity in and around the landscapes where we operate.

## New Planting Procedure (NPP) and Responsible Land Use Planning

The RSPO New Planting Procedure (NPP) consists of a set of assessments and verification activities to be conducted by growers and certification bodies (CB) prior to a new oil palm development. The intention is that new oil palm plantings will not negatively impact primary forest, HCV, HCS, fragile and marginal soils or local people's lands. UP subscribes and supports this stance. It is not enough to set aside areas for conservation. Patrolling of the conservation areas need to be conducted to protect these areas from intruders and fires so that the biodiversity is truly conserved. Our Bio-D Division utilizes the SMART system which is the world's preferred, most comprehensive and user-friendly conservation monitoring system.

The added advantage of using SMART is its statistical power that allows the BioD to compile and develop trend-lines and other forms of analyses pertaining to managing and protecting conservation areas and species..

For more information on our HCV and HCS assessment, please refer to our website, [www.unitedplantations.com/sustainability/](http://www.unitedplantations.com/sustainability/).

## Peat Developments

Since 2010 our Group has adhered to No Deforestation and to No new development on peatland regardless of depth. For existing plantation areas with Peat Soils best management practices are in place to minimize any adverse impact by operating on these fragile soils.

The total land bank of United Plantations Berhad as of 31 December 2020 is 63,074Ha. The total planted area under oil palm is 46,645 Ha of which Malaysia has 37,566 Ha and 9,079 Ha in Indonesia. In Malaysia the total peat area is 4,627.24 Ha and in Indonesia it is 784

Ha, i.e total peat is approximately 5,411.24Ha equal to approximately 11.6% of our total oil palm planted area. Our Research Team has re-assessed the peat area at our newly acquired brownfield plantation, Tanarata Estate, where there was a reduction in the peat hectareage. This is in line with the latest peat inventory which has been submitted to RSPO Secretariat.

## Water Management

Water management is particularly important on the acid sulphate and peat soils. These soils are fragile and if over drained, they will rapidly deteriorate. On the acid sulphate soils, the water level should be maintained up to the jarosite layer, submerging the pyrite ( $\text{FeS}_2$ ) and preventing it from oxidizing to sulphuric acid, which can cause a steep drop in the pH.

## Weirs for Moisture Conservation

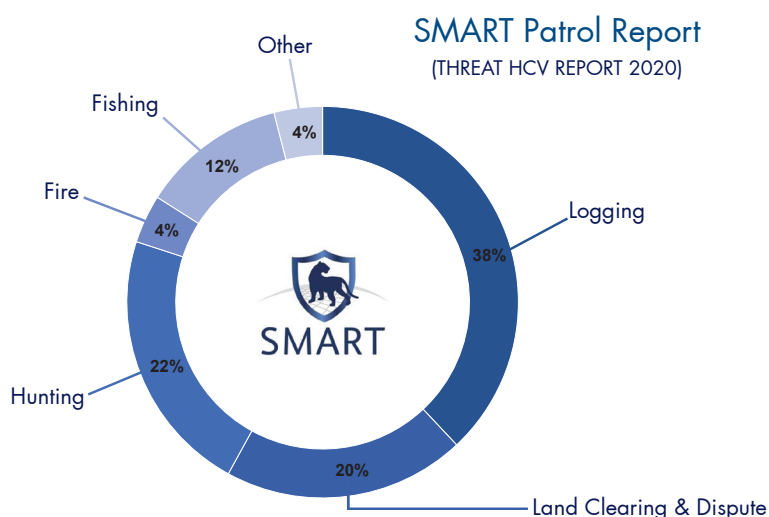
To conserve moisture during dry periods, a series of weirs are constructed across the collection drains to hold back water and raise the water-table to within 50-75 cm from the surface. To regulate the height of the water table, wooden planks are slotted into the desired level.

The density of weirs varies with the soil type, slope, rainfall and cropping system. On the average, one weir is provided for every 40 to 60 hectares or every 600-1000 m along the collection drain. Assisted by the water gates at the discharge ends of the main drains, the weirs are very effective in minimizing the adverse effects of the moisture stress. Our Research team is undertaking a Drainability Assessment in our peat areas which are due for replants in the next 5 years in accordance with RSPO Peat Drainability Guidance. This will help us better understand the hydrological characteristics of our peat areas.

## Monitoring of Meteorological Parameters

Weather stations have been set up at strategically important locations throughout our Group. These provide a large amount of micro-climate information critical to, particularly, make accurate fire-risk predictions.

Being able to predict the risk of fire allows the management in each estate to implement proactive measures, to prevent and minimize the risk of fire, as well as to be on high alert with firefighting equipment, in case of fire outbreak.





## Carbon Footprint Initiatives and Climate Action

UP respects and recognises the importance of global initiatives to protect fragile ecosystems and combat climate change. Since 2005, UP has actively been pursuing means of identifying ways to reduce its Greenhouse Gas (GHG) emissions and with that its reliance on fossil fuels. On a global perspective much more attention must be directed towards the adverse impacts of fossil fuel usage and minimising this as about 65% of all CO<sub>2</sub> (eq) emissions still come from burning fossil fuels. The world purchases about 93 million barrels of crude oil per day (equal to about 130 million MT per day), and it is therefore important to apply more pressure on mineral oil producers. As an example, a country like Norway today produces about 2 million barrels of crude oil per day. This alone is equal to 913,194 MT of CO<sub>2</sub> emission /day or similar to the CO<sub>2</sub> (eq) emitted from clearing 1,793 hectares of tropical jungles per day or deforestation rate of 650,000 hectares per year.

Positive change can be made through individual accountability and collective action and it is therefore important that we focus on a balanced approach where we all have to help minimize the impact of deforestation and green house gas emission and not just a selected few. There must be a commensurate effort in reaching this goal and therefore things should be put in perspective and acknowledgement given to the fact that palm oil production is not the main cause of deforestation. In this connection, ongoing initiatives must be intensified to minimize the impact of not just agriculture but all activities that in one way or the other contribute to deforestation and global warming.

### Life Cycle Assessment (LCA)

In 2006, following the completion of the world's first peer reviewed Life Cycle Assessment (LCA) study on the "cradle to grave" production of 1 MT of refined palm oil, various areas were identified within our production chain, which could mitigate GHG emissions. Following that, the world's first comprehensive LCA in accordance

with ISO 14040 and 14044 International Standards on palm oil was finalized in 2008 and subsequently underwent a critical panel review.

Further annual updates to this LCA were carried out by 2.0-LCA Consultants involving Dr. Jannick Schmidt from Aalborg, Denmark including the latest update undertaken for year 2020. The updated 2020 LCA model incorporated the new EXIOBASE background database and the contributions from indirect land use change, peat emissions and nature conservation have been reviewed in light of new data. These studies indeed helped to identify additional areas in need of further improvement within our Group.

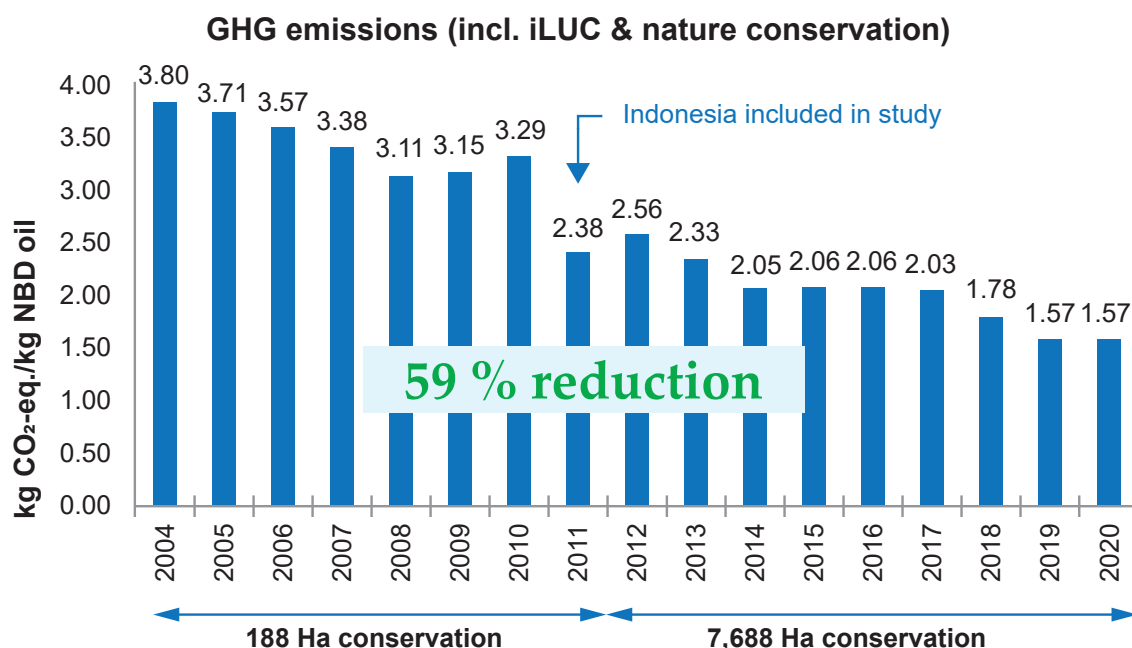
It should be noted that the GHG emissions per kg palm oil calculated in this study cannot be compared with the results obtained with the GHG accounting tool PalmGHG, due to key methodological differences between the two models.

### Significant reduction in UP's GHG emissions since 2004

Below, time series of GHG emissions from palm oil at UP is presented. The time series for NBD palm oil at UP shows a reduction of 52% (without iLUC) and 49% (with iLUC) from 2004 to 2020. When including nature conservation, a substantial reduction of 59% has been achieved. This study highlights the fact that UP's palm oil has significantly lower GHG emissions when compared to average RSPO certified palm oil as well as Rapeseed and Sunflower oil produced in Europe as seen in the graph on the next page.

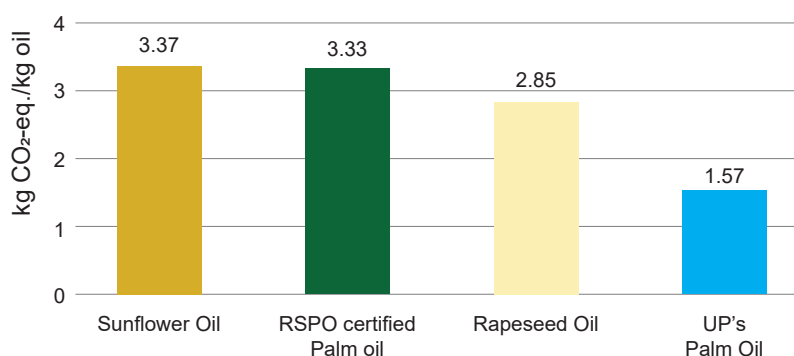
### Target 2025

Our internal goal of reaching 60% reduction of UP's Carbon Footprint per MT of refined palm oil produced by 2025 when compared to 2004 levels (with iLUC and nature conservation) remains an ambitious target set by the Company. We shall relentlessly pursue to reach and exceed this through more initiatives and further investments between 2021-2025.



Time-series for NBD palm oil at United Plantations Berhad (with iLUC and nature conservation) for 2004 - 2020.

## Comparison of Palm Oil Produced in United Plantations Against Average RSPO Certified Palm Oil and Other Oils



The 2020 GHG emissions from UP's palm oil production have been compared with industry averages of RSPO certified palm oil (Malaysia/Indonesia), rapeseed oil (Europe) and sunflower oil (Ukraine). The industry averages are based on Schmidt and De Rosa (2020) and Schmidt (2015).

### Emissions Reductions & Biogas Plants

As a necessary element in our pursuit to combat climate change, significant investments have been made in promoting green energy starting with the Biomass Reciprocating Boiler cum Power Plant and the first Biogas Plants built and commissioned in 2006.

These projects combined have since helped to significantly reduce our emissions of CO<sub>2</sub> by 70% and CH<sub>4</sub> by 80% at the respective operating units thereby paving the way for additional green investments. All of our mills are now equipped with Biogas Plants since 2018. For more information on our LCA assessment, please refer to our website, [www.unitedplantations.com/sustainability/](http://www.unitedplantations.com/sustainability/).

### Biogas to Grid Project

Since the UIE biogas plant began operation in 2010, the biogas generated at the mill was either flared or used as a substitute fuel in the mill boiler. In 2020 a total of 7,176 MWh of electricity was generated from the biogas plants and sold to the grid which is a 60% increase from the previous year.

### Photovoltaic Cell Pilot Project

A pilot project was initiated in 2020 to evaluate the feasibility of photovoltaic cells to produce green electricity from sunlight to offset electricity consumption from the grid. Located on the roof of the Tissue Culture Laboratory, these battery of cells are expected to generate 525 kW/day with the option of selling electricity unutilised by the laboratory to the grid.

### Biomass Reciprocating Boiler

The first Biomass Reciprocating Boiler (BRBI) was successfully commissioned in 2006 and supplied green

steam to Jendarata Palm Oil Mill as well as the Unitata Refinery, thus playing a crucial role in reducing the fossil fuel consumption at the refinery. Since then the company has built and commissioned another 7 biomass reciprocating boilers with the latest unit at UIE (M) installed in 2019.

Biomass boilers in our mills are also equipped with VORSEP dust particle minimizing system, and an automatic fuel feeding system with greater energy efficiency, reduced dust emissions and a lower labour requirement.

### Isokinetic Monitoring of Gaseous Emissions from the Palm Oil Mills

In conformance to the Department of Environment's stipulations as well as to monitor the quality of our gaseous emissions, flue gas compositions were regularly checked by certified assessors throughout 2020. The average dust concentration in the flue gasses of four palm oil mills in UP's Malaysian Operation and the Indonesian mill without the VORSEP system were tabulated.

In all Malaysian mills the average dust concentrations were below the limit of 0.15g/Nm<sup>3</sup> set by the Department of Environment as per the Environment Quality Act (Clean Air Regulations) 2014 and the Lada mill emissions is well within the 0.3g/Nm<sup>3</sup> set by the *Peraturan Menteri Negara Lingkungan Hidup No 07 Tahun 2007 in Indonesia*.

### VORSEP Dust Collector System

The VORSEP dust collector system was first installed on our Biomass Reciprocating boiler at Ulu Basir Palm Oil Mill replacing the old conventional multi-cyclone dust collector system. The unit was commissioned in June 2015 followed by progressive installation of additional units in the rest of the mills. With the commissioning of the VORSEP system at UIE mill in 2019 all of UP's palm oil mills in Malaysia are now fitted with the VORSEP dust collector system.

| Palm Oil Mill |                   | Average Dust Concentration (g/Nm <sup>3</sup> ) |
|---------------|-------------------|---|
| Jendarata     | - BRB 2           | 0.136   |
| Ulu Bernam    | - Boiler 1 & 2    | 0.126   |
| Ulu Basir     | - Boiler 4        | 0.125   |
| UIE           | - Boiler 2, 3 & 4 | 0.063   |
| Lada          | - Boiler 1 & 2    | 0.068   |



These units were installed primarily to meet the DOE's Environmental Quality Act (Clean Air Regulation) 2014 which among others requires a cleaner emission standard from the boiler with the following conditions: -

- i) The dust concentration emitted from the stack should not be more than 0.150g/Nm<sup>3</sup>
- ii) The smoke should not exceed shade No. 1 on the Ringlemann chart and should be less than 20% opacity

#### Palm Oil Mill Effluent (POME) and Palm Oil Refinery Effluent (PORE) Treatment

Palm oil mill effluent and palm oil refinery effluent are treated in treatment ponds to reduce their BOD and COD contents before they are used to irrigate the oil palm fields. Any release into this waterways after treatment must satisfy the DOE discharge limits.

#### Biomass utilisation and economic value

In 2020, a total of 725,920 MT of biomass residues were generated through the various field and mill operations of the Company's Malaysian operations.

Almost all of the total biomass generated (99.7%) or 723,729 MT were effectively utilised as organic matter back to the fields applied as organic mulch in the nursery or as fuel source, thereby enriching our soils and displacing the use of fossil fuels whilst adding value to the biomass generated.

Our Indonesian operations generated a total of 158,070 MT of biomass dry matter in 2020. Even though the quantum is lesser than what is generated in Malaysia, a very high proportion of these biomass (157,583 MT or 99.7%) was utilised through recycling in the field or as a green energy source with all the added benefits to the environment.

### Production and Level of Utilisation of Oil Palm Biomass Residues in UP in 2020

#### (Dry Matter Basis-Malaysian Operations)

| Biomass                         | Quantity Produced (MT) | Quantity Utilised (MT) | % Utilisation | Method of Utilisation   |
|---------------------------------|------------------------|------------------------|---------------|---|
| Trunks and fronds at replanting | 111,001                | 111,001                | 100           | Mulch   |
| Pruned fronds                   | 348,981                | 348,981                | 100           | Mulch   |
| Spent male flowers              | 33,556                 | 33,556                 | 100           | Organic matter recycled on land   |
| Fibre                           | 71,890                 | 71,890                 | 100           | Fuel & mulch in nursery   |
| Shell                           | 42,992                 | 42,992                 | 100           | Fuel & mulch for polybag seedlings  |
| POME                            | 29,214                 | 27,023                 | 93            | Biogas generation, nutrient source, field irrigation and base for organic fertiliser production |
| EFB                             | 88,286                 | 88,286                 | 100           | Mulch and Fuel  |
| Total                           | 725,920                | 723,729                | -             | -   |
| Level of utilisation =99.7%     |                        |                        |               |   |

#### (Dry Matter Basis-Indonesian Operations: Lada and Runtu Estates)

| Biomass                         | Quantity Produced (MT) | Quantity Utilised (MT) | % Utilisation | Method of Utilisation                                |
|---------------------------------|------------------------|------------------------|---------------|--|
| Trunks and fronds at replanting | -                      | -                      | -             | -  |
| Pruned fronds                   | 88,190                 | 88,190                 | 100           | Mulch  |
| Spent male flowers              | 8,480                  | 8,480                  | 100           | Organic matter recycled on land                      |
| Fibre                           | 19,289                 | 19,289                 | 100           | Fuel & mulch in nursery                              |
| Shell                           | 11,870                 | 11,870                 | 100           | Fuel & mulch for polybag seedlings                   |
| POME                            | 6,487                  | 6,000                  | 92            | Biogas generation, nutrient source, field irrigation |
| EFB                             | 23,754                 | 23,754                 | 100           | Mulch and Fuel                                       |
| Total                           | 158,070                | 157,583                | -             | -  |
| Level of utilisation =99.7%     |                        |                        |               |  |



*In compliance with our zero-burn policy, palm trunks are felled and chipped and mulched, enhancing the organic carbon content in the soil.*



*The Jendarata Estate Biogas Plant commissioned in 2006 treating the Palm Oil Mill Effluent. In the process of reducing the Biochemical Oxygen Demand by 99% in Palm Oil mill effluent, biogas is produced by methane bacteria and subsequently used as a source of green energy.*



## Fertilizer Equivalent and Monetary Value of Oil Palm Biomass Residues Recycled on Land in UP in 2020

### (Malaysian Operations)

| Biomass Residues                  | Method of Utilisation          | Quantity Utilised on Dry Basis (MT) | Fertiliser Equivalent (MT) |                |                   |           |
|-----------------------------------|--------------------------------|-------------------------------------|----------------------------|----------------|-------------------|-----------|
|                                   |                                |                                     | Urea                       | Rock Phosphate | Muriate of Potash | Kieserite |
| Trunks & fronds at replanting     | mulch                          | 111,001                             | 1,388                      | 466            | 1,785             | 851       |
| Pruned fronds                     | mulch                          | 348,981                             | 7,867                      | 2,559          | 6,654             | 4,356     |
| Spent male flowers                | organic matter                 | 33,556                              | 1,080                      | 715            | 1,985             | 1,030     |
| EFB                               | mulch                          | 37,443                              | 651                        | 275            | 1,810             | 416       |
| Digested POME                     | biogas generation & irrigation | 27,023                              | 940                        | 595            | 1,477             | 1,081     |
| Total (MT)                        |                                | 558,004                             | 11,926                     | 4,610          | 13,711            | 7,734     |
| Monetary value (RM)               |                                |                                     | 14,131,696                 | 1,451,904      | 16,248,189        | 4,361,996 |
| Total monetary value RM36,193,785 |                                |                                     |                            |                |                   |           |

### (Indonesian Operations - Lada and Runtu estates)

| Biomass Residues                  | Method of Utilisation          | Quantity Utilised on Dry Basis (MT) | Fertiliser Equivalent (MT) |                |                   |           |
|-----------------------------------|--------------------------------|-------------------------------------|----------------------------|----------------|-------------------|-----------|
|                                   |                                |                                     | Urea                       | Rock Phosphate | Muriate of Potash | Kieserite |
| Trunks & fronds at replanting     | mulch                          | -                                   | -                          | -              | -                 | -         |
| Pruned fronds                     | mulch                          | 88,190                              | 1,988                      | 647            | 1,681             | 1,100     |
| Spent male flowers                | organic matter                 | 8,480                               | 273                        | 181            | 502               | 260       |
| EFB                               | mulch                          | 23,129                              | 402                        | 170            | 1,118             | 257       |
| Digested POME                     | biogas generation & irrigation | 6,000                               | 209                        | 132            | 328               | 240       |
| Total (MT)                        |                                | 125,799                             | 2,872                      | 1,130          | 3,629             | 1,857     |
| Monetary value (RM)               |                                |                                     | 4,217,834                  | 567,279        | 5,118,512         | 1,321,066 |
| Total monetary value RM11,224,691 |                                |                                     |                            |                |                   |           |

With our commitment to sustainability and good agricultural practices, the recycling of field and mill biomass residues back to the oil palm land remains a cornerstone in UP. These measures have been shown to maintain and even improve soil fertility in the long term and enhance palm growth and yield.

In 2020, the total organic matter recycled on land in UP amounted to 558,004MT of dry matter which is equivalent to 323,642MT of carbon. At this rate, we are returning more than 17MT of organic matter or close to 10MT of carbon to each hectare of land, over the period of a year, thereby helping to replenish the soil carbon stock which is an important component of soil health.

Upon mineralisation, the organic residues release substantial quantities of previously locked plant nutrients to the soil which is available for palm uptake.

The fertiliser equivalent of the material recycled on land is of the order of 37,211MT of NPKMg fertiliser which in itself has a monetary worth of RM36.19 million at the prevailing 2020 fertiliser prices.

For our Indonesian operations, a total of 125,799 MT of biomass was recycled back onto our plantation land. This is equivalent to adding 72,963 MT of organic carbon to enrich the land which on a hectare basis is akin to returning 15MT of organic matter or almost 9 MT organic carbon to the land.

On the more sandy soils in Indonesia such inputs will have a significant benefit on improving long term soil health. The nutrient content in these recycled biomass is equivalent to 9,488MT of inorganic NPKMg fertilisers, with a value equivalent to RM11.22 million at 2020 prices.

### Recycling of pesticide containers and scheduled wastes

To avoid contaminating the environment and prevent misuse of pesticide containers and other scheduled wastes we have been collecting and disposing off triple rinsed pesticide containers, spent lubricants, used batteries and spent fuel filters through certified waste managers.

The waste managers will either safely recycle these items or dispose of them in accordance with government regulations. There is no deemed hazardous waste under the terms of Basel Convention Annex I, II, III and VIII, that were transported, imported, exported or treated.

Triple rinsed plastic pesticide containers (MT)

|       | 2020 | 2019 | 2018 |
|-------|------|------|------|
| UPB   | 14   | 17   | 29   |
| PTSSS | 1.4  | 1.4  | 1.8  |

Spent lubricants (lit)

|       | 2020   | 2019   | 2018   |
|-------|--------|--------|--------|
| UPB   | 51,167 | 41,661 | 46,909 |
| PTSSS | 4,677  | 3,760  | 3,242  |

Used batteries (pieces)

|       | 2020 | 2019 | 2018 |
|-------|------|------|------|
| UPB   | 107  | 159  | 161  |
| PTSSS | 11   | 18   | 15   |

Spent fuel filters (pieces)

|       | 2020  | 2019  | 2018  |
|-------|-------|-------|-------|
| UPB   | 4,936 | 4,888 | 4,021 |
| PTSSS | 195   | 267   | 175   |

### Water Impacts

Relates to UP's measures to preserve and protect water ways and manage the use of water throughout our organisation.

UP fully appreciates that much more can be done in terms of water productivity. In order to maximize the available water resources, United Plantations has, since 1913, gone to great length to construct an extensive system of water gates, bunds, weirs, canals and drains hereby enabling us to harvest and optimize the usage of rain water.

In addition, leguminous cover crops are established in all our immature plantings to conserve moisture. In this context, it is important to mention that except for the nursery areas, none of UP's planted areas under oil palms or coconuts are irrigated. All our areas are under rain-fed agriculture, thus making use of whatever water which comes naturally from above. We are continuously working to mitigate our water footprint related to mill waste, maintaining buffers along natural waterways, harvesting rainwater, frugal domestic water usage and judicious use of pesticides and weedicides.

The consumptive use of water (evapotranspiration) of these crops ranges from 120-150 mm per month. To meet requirements, the monthly rainfall should equal or preferably exceed this figure, failing which moisture stress would occur.

The rainfall in the UP Group ranges from 1,600 to 2,500 mm per year, with the average being 2,000 mm. Monthly distribution is reasonably uniform, but drought does occur when some estates receive less than 100 mm of rainfall over 2-4 months as experienced in past years.

Weirs have been constructed across the collections drains to harvest rainfall and hold back water to raise the water table.

### Hydrology and Limnology

Clean water is critical to sustain all kinds of life form on Earth. In rural Indonesia thousands of local residents are dependent on water supplies from lakes and rivers.

Maintaining a clean and uninterrupted supply of water constitutes one of the most critical components in sustainable palm oil production.

The Biodiversity team has developed a "Hydrology map" and identified a number of permanent sites for sampling water quality. Using the state-of-the-art equipment, the team measures and records organic, inorganic and physical pollution parameters in the field.

Potential trace elements and toxins are measured with a spectrophotometer in the laboratory. In the event of a sudden deterioration in water quality, the team will identify the source of pollution and initiate a process to rectify the problem.

This includes identifying any unusual organic contamination, usually due to empty fruit bunches that mistakenly have slid into a stream or if an unusual high level of inorganic contamination is detected, it is usually a result of excessive wash-out of fertilizer.

Such information is communicated to the respective estate manager, allowing them to rectify a potential problem within a very short time period.

In our pursuit to conserve this depleting precious gift, every effort is being done to educate our residence to be frugal on its usage.

Old water pipes, water tanks, faulty taps are being replaced from time to time to arrest leakages. We aim to reduce the consumption in the coming years with more awareness programmes.

### Domestic Water Consumption (gallons per capita per day)

|                       | 2020 | 2019 | 2018 |
|-----------------------|------|------|------|
| Malaysian operations  | 73   | 69   | 69   |
| Indonesian operations | 77   | 71   | 76   |



### Erosion Monitoring Plots

To better understand the dynamics of soil, water and nutrient loss that can occur in our property, several erosion monitoring plots measuring 6m x 20m were set up in one of our estates on slightly sloping land under mature oil palm. Thereafter the amount of soil loss, surface runoff and nutrient losses in each of these fractions are being closely monitored to determine the major routes of soil, water and nutrient loss. Such studies illuminate the areas of major loss through which mitigating measure can be developed to minimise the depletion of these vital natural resources.

### Rain Harvesting

As part of our effort to conserve water resources and minimise wastage we have embarked on a programme to fit workers' housing with tanks to store harvested rain water which is especially beneficial during periods of prolonged dry weather.

### Mill Water Consumption Rate

We monitor the water consumption for processing of FFBs and ensure optimum water consumption without unnecessary wastage. Any leakage in water supply will be repaired immediately.

Mill water consumption rate in processing fresh fruit bunches (MT water/MT FFB processed)

|                      | 2020 | 2019 | 2018 |
|----------------------|------|------|------|
| Malaysia operations  | 1.7  | 1.7  | 1.5  |
| Indonesia operations | 1.1  | 1.4  | 1.2  |

### Pesticides and Chemical Usage

Conducting our operations under the best principles of agriculture and to reduce chemical and pesticides usage thereby minimising the impact to the natural environment.

UP has a strong commitment to Integrated Pest Management (IPM), and in line with the Principles and Criteria of the RSPO we are continuously working on reducing the usage of pesticides. Our employees' safety is a top priority and in this connection all sprayers are trained extensively and are required to use full Personal Protective Equipment.

According to CropLife International, a global federation representing the plant science industry, 42% of crop production throughout the world is lost as a result of insects, plant diseases and weeds every year. In the tropics crop losses can reach as high as 75%.

Careful use of pesticides can deliver substantial benefits for our society through increasing the availability of good quality and more affordably priced food products. However, pesticides are inherently dangerous and it is in everyone's interest to minimize the risk they pose to people and the environment.

### Integrated Pest Management (IPM)

IPM, means a pest management system that in the context of the associated environment and the population dynamics of the pest species, utilizes all suitable techniques and methods in as compatible a manner as possible and maintains the pest population at levels below those causing economically unacceptable damage or loss.

Source: FAO

Our commitment towards continuous improvements has resulted in minimizing the usage of pesticides in relation to other major oil seed crops, primarily through Good Agricultural Practices and improvement in planting materials.

Today, UP's use of pesticide is 4-6 times lower per tonne of oil produced compared to Rapeseed and Soybean farmers and about 30-40 times lower compared to Sunflower growers.

### Establishing Beneficial Flowering Plants

To date, a total of 296,252 broadleaf flowering plants have been planted in our plantations encouraging parasitoid and predator activities which is a vital part of our IPM programme.

There has been a steady increase in the number of beneficial plants which were planted in our Malaysian and Indonesian properties over the last few years to function as shelter and food source for the beneficial insects.

|                                  | Malaysia               | Indonesia              |
|----------------------------------|------------------------|------------------------|
| <i>Cassia cobanensis</i>         | - 43,091 planted       | - 14,832 planted       |
| <i>Tunera subulata/ulmifolia</i> | - 111,062 planted      | - 93,307 planted       |
| <i>Antigonon leptosus</i>        | - 15,296 planted       | - 151 planted          |
| <i>Carambola sp</i>              | - 3,554 planted        | - 10 planted           |
| <i>Others</i>                    | - 6,315 planted        | - 8,634 planted        |
| <b>Total</b>                     | <b>179,318 planted</b> | <b>116,934 planted</b> |



*Tunera ulmifolia* - one of the beneficial plants being established in our fields.



EXCOM inspecting a field with foliage damage by severe bagworm (*lepidoptera*) outbreak.

### Surveillance and Monitoring of Pest Outbreaks

The key to minimizing both the economic impact of pest and environmental impacts from excessive use of pesticides is by regular surveillance and monitoring. Treatment is only carried out when the damage exceeds established critical thresholds. Several census gangs are deployed on each estate to survey the extent of pest infestation. This is coupled with regular aerial reconnaissance in order to track and pre-empt pest build-up thereby more effectively treating potential outbreaks.

### Use of Biological Pesticides and Pheromones

First line treatment against leaf pests i.e. Nettle Caterpillar and Bagworm is by biological treatment in the form of *Bacillus thuringiensis*. The use of pheromones to trap Rhinoceros Beetles thus reducing the dependency on chemical pesticides is also adopted on all estates.

Besides trapping out the beetles, pheromone traps also provide management with statistical information of the severity of the beetle problem and supplements

the chemical spraying operations to minimise beetle damage.

Overpopulation of rats, beetles and various kinds of weeds can have profound negative impact on production yield. UP Group attempts to minimize the usage of chemical control-agents where possible, and the BioD undertakes a number of research projects to maximise the usage of biological control agents where possible. For example, leopard cat (*Prionailurus bengalensis*) is one of the key-predators of rats and other small rodents, and preliminary studies on the effect of these cats as rat-controllers in a plantation landscape is ongoing.

The results have been very promising, and UP's biodiversity team is currently exploring ways to enrich the habitat conditions for leopard cats, to maximise the population density and thereby reduce the effect of rat damage. Apart from leopard cats, the team also records ecological parameters along with the effect on rat populations of other predators such as barn owls (*Tyto alba*), Spitting cobra (*Naja sumatrana*) and water monitor lizards (*Varanus v. salvator*).

| United Plantations Palm Oil<br>(Malaysian Operations*) |      |      |      | Soybean** | Sunflower** | Rapeseed** |
|--|------|------|------|-----------|-------------|------------|
|  | 2020 | 2019 | 2018 |           |             |            |
| Pesticides /<br>Herbicides<br>(kg per MT oil)          | 0.76 | 0.70 | 0.70 | 3.95      | 28          | 3.73       |

\*Includes palm oil+palm kernel oil (UP, 2018-2020 - Malaysian operations)

\*\*Data from FAO, 1996- Pesticide data for soybean and rapeseed updated in 2007/9 and 2010 respectively

| United Plantations Palm Oil<br>(Indonesian Operations*) |      |      |      | Soybean** | Sunflower** | Rapeseed** |
|---|------|------|------|-----------|-------------|------------|
|   | 2020 | 2019 | 2018 |           |             |            |
| Pesticides /<br>Herbicides<br>(kg per MT oil)           | 0.15 | 0.10 | 0.12 | 3.95      | 28          | 3.73       |

\*Includes palm oil+palm kernel oil (UP, 2018-2020 - Indonesian operations)

\*\*Data from FAO, 1996- Pesticide data for soybean and rapeseed updated in 2007/9 and 2010 respectively



## 5-Step Integrated Pest Management Programme approach taken to contain and/or control Bagworm outbreak.

### 1) Integrated Pest Management

*E.g. planting of beneficial plants to enhance the natural parasitic and predator activities against bagworm. To date more than 296,252 beneficial broadleaf flowering plants have been planted in both Malaysia and Indonesia.*

### 2) On-going Monitoring

*Census gangs deployed on each estate who take random frond samples in a pre-determined pattern throughout each estate. These fronds are subjected to insect counts and damage assessments by trained personnel.*

### 3) Aerial Surveillance

*Regular aerial reconnaissance is carried out to better detect, pre-empt and treat potential outbreaks.*

### 4) Use of biological control agents

*E.g. Bacillus thuringiensis as the first line of treatment against an outbreak.*

### 5) Final Resort

*As a final resort and only when Steps 1 to 4 have proven to be futile in containing or controlling the natural equilibrium between pest and beneficial predator, our trained personnel intervenes with the specific treatment of trunk injection.*

## Monocrotophos phased out completely

In 2020, we have successfully phased out monocrotophos, which is a key milestone. Concerted efforts to source and evaluate alternatives for the Class 1A insecticide, monocrotophos, have been ongoing since 2006 through our collaboration with several multinational chemical companies, amongst others Bayer and BASF (Germany), Syngenta (Switzerland), Cheminova (Denmark), Sumitomo (Japan), Rainbow Agrosciences (China) and UPL (India).

Multiple experimental and existing insecticidal compounds have been evaluated for bagworm control with our partners with no success in matching the efficacy of monocrotophos. In recent years our Research Department was able to test new formulations of an existing insecticide that hitherto gave inconsistent bagworm control. It has now been established that with these new formulations we are able to have a commercially viable and effective alternative to monocrotophos with a Class II toxicity rating which is a much safer product.

As a result, we have since September 2020 successfully phased out the use of monocrotophos and metamidophos for trunk injection to control bagworm. This is a key milestone as our plantations can now dispense with the use of WHO Class 1A or 1B pesticides for bagworm control and replaced them with an equally effective product.

Nonetheless, bagworm is an endemic pest in Lower Perak and the Federal Government has gazetted this as a "Dangerous Pest" on 15th November 2013. It is an offence under the Plant Quarantine Act 1976 if this dangerous pest is left without any control and can be fined up to RM10,000.

Outbreaks of bagworms continue to occur in the properties neighbouring UP in the State of Perak, West Malaysia. This is of great concern as it is important that collaborated effort by the government authorities, neighbouring smallholders and other plantations are put in place in an attempt to eradicate this serious pest.

UP is working closely together with its neighbours as well as the authorities in the form of the Malaysian Palm Oil Board (MPOB) to achieve positive progress on this concerning issue. UP has extended its service to the neighbouring plantations the use of its airstrips for aerial bagworm control and also taking the plantation managers for aerial reconnaissance flights to monitor the extent of bagworm infestations in the region.

As can be seen in the table on next page, the quantity of agrochemicals (fertilizer nutrients and pesticide/herbicide) per tonne of oil produced in oil palm cultivation at UP over the last three years remain substantially lower than annual oilseed crops such as soybean, sunflower and rapeseed, a reflection on the resource utilization efficiency of the oil palm crop.

Pesticide usage in 2020 was slightly higher than 2019 level as a result of higher herbicide and insecticide usage. Direct fossil fuel energy consumption was slightly lower in 2020 in comparison to 2019 due to higher crop production.

## Biological Control Agents to Substitute for Chemical Insecticides

Leaf eating pest outbreaks in immature oil palms will need to be treated with insecticides. The use of biological insecticides such as *Bacillus thuringiensis* is encouraged at this young crop stage to minimise collateral damage on beneficial insects in the field as well as to reduce dependency on chemical insecticides.

Our use of biological insecticides is as recorded below although the quantity used is also dependent on the palm age where pest outbreaks occur. In 2020 more older palms were infested which is less amenable to spraying with biological insecticides.

|                      | 2020 | 2019 | 2018 |
|----------------------|------|------|------|
| Malaysia operations  | 0    | 90   | 288  |
| Indonesia operations | 0    | 0    | 0    |

*Quantity (kg) of Bacillus thuringiensis applied in our Malaysian and Indonesian operations.*

## Agrochemical and Energy Inputs in the Cultivation of Oil Palm and Other Oilseed Crops

| Input   | Per tonne oil basis |      |      |           |             |            |
|---|---------------------|------|------|-----------|-------------|------------|
|   | Oil Palm*           |      |      | Soybean** | Sunflower** | Rapeseed** |
|   | 2020                | 2019 | 2018 |           |             |            |
| Fertiliser nutrients                          |                     |      |      |           |             |            |
| Nitrogen (N-kg)                               | 19                  | 21   | 19   | 315       | 96          | 99         |
| Phosphate (P <sub>2</sub> O <sub>5</sub> -kg) | 8                   | 10   | 10   | 77        | 72          | 42         |
| Potash (K <sub>2</sub> O-kg)                  | 43                  | 47   | 44   | NA        | NA          | NA         |
| Magnesium (MgO-kg)                            | 7                   | 8    | 7    | NA        | NA          | NA         |
| Pesticides/Herbicides (kg)                    | 0.76                | 0.70 | 0.70 | 3.95      | 28          | 3.73       |
| Energy (GJ)                                   | 0.55                | 0.59 | 0.76 | 2.90      | 0.20        | 0.70       |

\* includes palm oil + palm kernel oil (UP, 2018-2020 - Malaysian Operations)

\*\* Data from FAO, 1996- Pesticide data for soybean and rapeseed updated in 2007/9 and 2010 respectively

### Mowing of Harvesters' Paths

Blanket weeding is discouraged, soft weeds with shallow root system which do not grow to excessive heights are encouraged outside the weeded palm circle. Harvesters' paths are mowed. This practice maintains a flora which is favourable to natural enemies of crop pests and reduce soil loss.

### Harnessing advances in pesticide technology to reduce herbicide inputs in mature oil palm

In the wet tropics, weed species rapidly cover the ground and if left unchecked, will encroach into palm circles to compete with the palms for nutrients and water as well as interfere with field operations.

Consequently, herbicides are an important tool to keep the palm circles weed free. Of the total pesticides used in a mature field, herbicides will therefore account for more than half of the total pesticide load. Thus any improvement in the length of control for weeds will contribute significantly to a reduction in pesticide use for mature palms.

Over the years UP has actively co-operated with leading agrochemical manufacturers to evaluate a range of herbicidal compounds. Arising from the close collaboration with Bayer CropScience a new compound, Indaziflam, with long lasting weed control was extensively tested in our fields and was found to be able to slash the number of herbicide rounds from four rounds a year with the standard herbicide mix to two rounds a year with the Indaziflam combination.

This confers the clear benefit of almost halving the herbicide input in a field and greatly improving labour productivity where this approach has been adopted.

### Calibration for Pesticide Application Equipment

The Company engages the services of equipment suppliers to regularly monitor the calibration of the equipment to avoid application error (under and over applications) and safety to operators.

Regular training and refresher courses are implemented, all of which are audited by the MSPO/ISPO/RSPO accredited auditors every year.

### Monitoring of herbicide usage (kg a.i./ha)

|                      | 2020 | 2019 | 2018 |
|----------------------|------|------|------|
| Malaysia operations  | 3.84 | 3.30 | 2.91 |
| Indonesia operations | 0.81 | 0.54 | 0.69 |

*Reduction of overall herbicide usage (kg a.i./ha/year) in mature oil palm planting with the introduction of Indaziflam herbicide in 2016 onwards.*

### Chemical Health Risk Assessment (CHRA)

In line with the Use and Standards of Exposure of Chemicals Hazardous to Health (USECHH) Regulations 2000, UP first appointed a certified assessor to conduct CHRA in 2004, for all chemicals utilized in the respective plantations, oil mills and refinery.

It is being reviewed every 5 years by the assessor as stipulated in the Regulations and annual medical health surveillance is conducted on all spray operators.





Rats eat both palm fruits and male flower in the oil palm fields and are considered one of the main pests in oil palm fields. Leopard cats (*Prionailurus bengalensis*) and Barn owls (*Tyto alba*) significantly reduce rat population and the usage of rodenticides.

### Biological pest control of rats

Rats thrive in the oil palm ecosystem with an abundance of food source (palm shoots, fruit mesocarp, kernels, weevil grubs etc.) as well as plentiful harborage amongst the cut frond heaps. The common rat species encountered in an oil palm field are the Malaysian wood rat (*Rattus tiomanicus*), padi field rat (*Rattus argentiventer*) and the house rats (*Rattus rattus diardii*).

With its prolific reproductive rate, whereby a sexually mature female could conceive multiple times a year and produce an average of 8 pups in each litter, rat populations can mushroom if given the right condition resulting in high crop losses. Various researchers have estimated crop loss caused by rats feeding on fruit mesocarps to be able to reduce oil yield by 5 – 10% (Wood, 1976; Liau, 1990). Badly gnawed male and female inflorescences, as well as young palms killed by rat attacks further contribute to crop loss.

### Barn Owls

The Barn owl is a much-loved countryside bird by oil palm planters as it predares on rats, resulting in major reduction of rodent damage.

This bird is the best partner to growers due to its ability to adapt well to oil palm plantations. It survives on a staple diet of 99% rats. It is estimated that a pair of barn owls together with its chicks consume about 800 to 1,000 rats per year.

The barn owls are medium sized (34-36cm) with long legs that have feathers all the way down to their grey toes. The owls have large, round heads without ear tufts and pale heart-shaped facial disc. The owls ingest the rat whole and use their digestive juices to dissolve the nutrients of the fleshy parts. The tougher indigestible parts such as the bones, skulls are regurgitated out.

Barn owl population in tandem with preys' availability can be expanded in the plantation by construction of boxes at vantage points – about 5 meters from the ground and shaded by the palms' canopies.

A zinc baffle or collar should be placed on the pole to prevent snakes etc. from predation of the owl's eggs and new born chicks. These boxes should be inspected regularly and repaired where necessary in order to optimize its' occupancy.

At United Plantations, the barn owl is the first line of defence against this serious pest. Where owls could not cope with the high rat population, first generation rat baits such as warfarin are employed to selectively bring down the population.

Warfarin baits are preferred as they are relatively safer to barn owls than second generation rat baits. Based on the low usage of rodenticides in the past years, we can infer that the barn owl programme has been fairly successful in keeping rats under control, augmented with rodenticide baiting in selected areas.

### Leopard cats

Since its formation in 2011, the Biodiversity Division in UP/PTSSS has recorded a surprising number of leopard cats, *Prionailurus bengalensis*, in the estates. The species is common throughout Southeast Asia in undisturbed as well as altered habitats.

They are common in some oil palm estates; however, little is understood about their role as rat predators in a plantation landscape although studies have shown that rats and mice constitute 93% of the leopard cat's mammalian diet (Rajaratnam et al., 2007). Field observations demonstrate there is a negative relationship between cat numbers and rat population, with high abundance of cats associated with low rat numbers and vice versa (Silmi et al., 2013)

| Year                                      | 2020   | 2019   | 2018   |
|---|--------|--------|--------|
| Total Boxes                               | 2,717  | 2,489  | 2,491  |
| Total Area Under Owl (Ha)                 | 32,603 | 31,500 | 32,322 |
| Box to land ratio in Scheme               | 12.00  | 12.66  | 12.98  |
| % Occupancy in Scheme                     | 48.58  | 52.35  | 54.16  |
| Total Planted Area (Ha)                   | 34,158 | 34,226 | 35,813 |
| Box to land ratio over Total Planted Area | 12.57  | 13.75  | 14.38  |
| Rodenticide ai/planted Ha (kg/Ha)         | 0.0006 | 0.0011 | 0.0008 |

Since 2015, nine individual leopard cats have been collared and continuously tracked for 23 months and aided by 40 camera traps set up in a 800m by 800m grid generated estimates of the respective cats' home-ranges and dispersal patterns. With at least 2-4 individual/km<sup>2</sup> the leopard cat density in the oil palm estate is much higher than in the conservation forest with a density of less than 1 individual / km<sup>2</sup>. Leopard cat population in the study area declined in 2019 and 2020 and studies are underway to determine the cause of decline.

The cats are strictly nocturnal and prefer to hide and rest in thick bush, primarily consisting of sword-fern (*Nephrolepis* sp) during day-time, but forage both on the ground and in the palm canopy at night.

Some preliminary results conclude that leopard cats can feed, reproduce and thrive in a palm oil estate, with a mean home range (95% MCP) for male leopard cats 1.39 km<sup>2</sup> (n = 5; SD = 1.40 km<sup>2</sup>) and a mean home range of female cats smaller at 1.26 km<sup>2</sup> (n = 4; SD = 0.36 km<sup>2</sup>). In areas where rats constitute the main prey, leopard cats eat an average of 2-3 rats per day. Amphibians, snakes and birds are also on the menu.

With a body weight range of 2.5-4.0 kg leopard cats are expected to consume more food than the much lighter barn owl, a factor which may be favourable in its role as a rat control agent (Silmi et al.,2013) Our observations reveal that leopard cats can reproduce rapidly with some females giving birth to 4 cubs, with reproduction cycle every five to six months.

### Fighting the Haze and Preventing Fires

There shall be no use of open burning/fire in new or ongoing operations for land preparation, land management, waste management, or any other

reason other than justified and documented cases of phytosanitary emergency.

### Zero Burning Policy

We will be conducting a series of community workshops to educate our local communities about the environmental and social consequences of slash-and-burn farming, as well as to promote alternative methods of land clearance.

Our goal is the total eradication of fire as a means to clear land by the local communities. This year thankfully there was no severe drought in Indonesia.

To further enhance the fire patrol, four additional fire watch towers were constructed at strategic points and purchased additional six units of GPS devices.

There were some isolated fire incidents which burnt approximately 1.06 Ha within our Plasma area(inner ring) and 13.2Ha at the outer ring adjacent to our concession. However, the fire was immediately extinguished by our ERT in PTSSS.

### Hectares Burnt in Fires

|             | 2020 | 2019  | 2018  |
|-------------|------|-------|-------|
| Non Planted | 0    | 13.28 | 31.20 |
| Planted     | 1.06 | 3.22  | 0.55  |
| Total       | 1.06 | 16.50 | 31.75 |

### Outer Ring Range of ≤500 m

|                        | 2020                                      | 2019                                     | 2018                       |
|------------------------|---|--|----------------------------|
| Outer ring ≤500 m (Ha) | 13.2<br>*Grassland in outer ring of Kumai | 96.75<br>*95Ha in the outer ring of Arut | 1<br>*Small farmer's field |



Fire patrols are conducted regularly in our Indonesian estates during the dry season.





*UIE has since 2008 become a "tree seed- garden" pioneer estate which holds one of Malaysia's finest and diverse collections of Native Jungle trees species with thousands of native trees planted. Mr. Geoffrey Cooper seen here in the tree nursery inspecting the young saplings.*

### Tree Reserves

#### The Lagoon Tree ('Kingham-Cooper') Reserve.

This 7.50 hectare area established in 2008 started as a barren piece of land surrounding the Lagoon which supplies UIE Palm Oil Mill with processing water.

The Kingham-Cooper Tree Reserve had since been planted with several thousand local trees, and now resembles a natural thick jungle, with over 250 diverse species and 12,000 indigenous trees at this area alone.

#### UIE Main-Office Tree Parks.

Extending beyond the Lagoon, are a number of other fields planted with more diverse trees, emphasis on rare and valuable hardwoods such as the *Dipterocarpaceae*. Family (*Shorea*, *Hopea*, and *Dipterocarpus*). Additionally, a variety of "food chain" species have been planted to provide food & nesting for birds, habitat for wildlife.

#### The Sungei Anak Macang Riverbank Reserve.

This 5.85 km strip of land along the southern boundary to Anak Macang River which is not permitted to be cultivated with commercial crops, as regulated by the RSPO, and which has to revert back to natural vegetation. Since 2011, it has been enriched with a variety of jungle tree species and has become a pleasant, diverse area for biodiversity.

For more information on our tree reserves, please refer to our website, [www.unitedplantations.com/sustainability/](http://www.unitedplantations.com/sustainability/).





*Sterculia macrophylla* canopy seeds ready for harvesting.



## Community

Our business provides livelihood to families, small businesses and organisation in and around the plantations resulting in many people depending on our Group. Close bonds with our local communities are therefore a key priority to our organisation. We are committed in promoting socio-economic policies and progress in local communities we operate in.

UP has an obligation to monitor and manage any impact our operations might have on these communities and at the same time ensure that our local communities receive financial, social support and benefit by developing the local communities in which we operate by creating jobs, paying taxes and doing business with local enterprises.

### Continuous Stakeholder Engagement

UP has engagements with various stakeholders in and around our areas of operation. Our engagement approach varies from formal to informal. All enquiries by stakeholders are recorded and monitored in order to resolve any ongoing issues as sustainable development cannot be achieved without engagement with stakeholders.

### Grievance Resolution

Under our MSPO, ISPO and RSPO frameworks, we are obligated to deal with issues openly. The respective Principles and Criteria states the need for a commitment to transparency and mutually agreed system for dealing with complaints and grievances shall be in place and implemented. This procedure ensures that local and other interested parties understand the communications and consultation process for raising any issues with UP.

UP accepts its responsibility as a corporate citizen and wants local communities to be aware and involved in the communications and consultation methods it uses, thereby aiming to resolve grievances (including those originating from employees) through a consultative process and realizes that any system must resolve disputes in an effective, timely and appropriate manner that is open and transparent to any affected party.

Recognising the value and importance of communication and consultation in clearing up misunderstanding/ conflicts/grievances or raising any issues with UP, the following procedure is adopted, in an affective, timely and appropriate manner that is open and transparent to any affected parties.

### External Stakeholders

They are Statutory Bodies, NGOs, Local Communities, Smallholders, Contractors, Third Party FFB Suppliers and Services Providers.

### Internal Stakeholders

All employees of UP and their respective Trade Unions.

### Education



Today, our Group has 9 Primary Schools and 7 Kindergartens on its properties which are maintained by the Company, providing education for more than 500 children ranging from ages of 5 to 12 years from within and outside the plantations. Continuous improvements were made during 2020 to maintain the highest possible welfare standards for our workforce and ensure high standard educational facilities for the children. Scholarships are provided to needy children among the Indonesian villages in which we operate.

### Infrastructure investment and support



We finance and provide services to improve rural communities' access to services and markets, as well as to create employment. Our initiatives include the construction, maintenance and renovation of roads, bridges, places of worship, and community facilities such as community halls, sports and cultural facilities.

### Estate Group Hospitals



The Company operates two well-equipped estate group hospitals in Malaysia and Indonesia with trained resident Hospital Assistants supervised by a Medical Doctor. Medical services are open to our rural neighbours who in the past lacked access to basic healthcare and immunisation programmes.

Social  
Commitments  
for  
Communities





*A range of social amenities to cater for the needs of our employees, stakeholders and surrounding communities.*



### Procedure for Handling External Stakeholders Issues

The Company Secretary of United Plantations Berhad will be responsible for the handling of all enquires and grievances against the Company. The stakeholders may lodge their enquiries/grievances to the respective Estate Manager or Head of Department or directly to the Company Secretary. The Company Secretary's address is as follows:

The Company Secretary  
United Plantations Berhad  
Jendarata Estate  
36009 Teluk Intan  
Perak Darul Ridzuan, Malaysia  
Tel : 05-6411411; Ext – 215,334  
Fax: 05-6411876  
Email: up@unitedplantations.com

For further details on our grievance redressal procedures for internal and external stakeholders, please refer to our website, [www.unitedplantations.com/sustainability/](http://www.unitedplantations.com/sustainability/).

### Land Disputes and Free, Prior and Informed Consent (FPIC)

In Indonesia, land disputes are inevitable and part of managing plantations in the country. To minimize land issues, important free, prior and informed consent sessions with stakeholders are conducted as a vital part of sustainable plantation development.

UP has been involved with several thousand land deals with the local community and whilst most cases of disputes have been amicably resolved, there still exists unresolved cases that are in the process of being resolved based on facts and full transparency under our Standard Operating Procedure (SOP) for Land Disputes Settlement as per FPIC.

We are committed towards the principles of Free, Prior and Informed Consent (FPIC) and adhere to these principles in all our negotiations and interactions with stakeholders prior to any development or acquisition of land.

For further details on SOP for Land Disputes Settlement as per FPIC protocols, please refer to our website, [www.unitedplantations.com/sustainability/](http://www.unitedplantations.com/sustainability/).

### Plasma Schemes / Outgrowers Scheme

The Indonesian Government's objective is to ensure the establishment of Plasma Projects equivalent to 20% of a Company's planted area.

At our Indonesian Plantations, we are actively involved with a government project known as the Plasma Scheme, designed to assist smallholders to become independent plantation growers.

Under the Plasma Scheme, UP helps smallholders to develop their land, including land preparation, for cultivation of oil palms. Once developed, the plantation is managed by the Company for one cycle after which it will be handed over to the smallholder for self-management.

During the first cycle, proceed from the Plasma-areas minus development cost, is paid to the farmers by the Company.

We expect the scheme to provide more opportunities for the smallholders and help alleviate poverty. With this programme, we hope to steer them away from illegal logging, as well as slash-and-burn activities that can have a huge negative impact on environment. In the early years of plantations development, before the oil palm trees reach maturity, the livelihood of smallholders is supported through employment by the Company.

### Summary of Disputed, Resolved and Settled Cases from 2018 to 2020 (PT SSS)

| Year  | Resolved/Settled Cases | Estate            | Disputed area (Ha) |
|-------|------------------------|-------------------|--------------------|
| 2018  | 2                      | Lada/Arut Estates | 1.33               |
| 2019  | -                      | -                 | -                  |
| 2020  | -                      | -                 | -                  |
| Total | 2                      | -                 | 1.33               |

| Date Claim Submitted | Cert/SKT | Name of Claimants | Blk/Flds | Hectarage     |                   | Nature/Status of Dispute<br>Status of Docs & Facts  | Progress To date   |
|----------------------|----------|-------------------|----------|---------------|-------------------|---|--|
|                      |          |                   |          | Docs          | Claimant's Demand |   |  |
| 15-Sep-14            | Cert     | Jaka Suherman     | 88       | 30 certs @2Ha | 39TKD (6 people)  | <ul style="list-style-type: none"> <li>Requesting for Plasma</li> <li>Documents incomplete</li> </ul> | Discussions to process the certificates for inclusion of Koperasi KIJ's members in the PTSSS's plasma scheme are ongoing but the Koperasi is yet to gather all members involved for an official meeting for decision making. |

They typically work as employees on our plantations, while they at the same time get an understanding of oil palm cultivation and best management practices.

The Company provides the smallholders with sufficient resources and is committed to buying their FFB at government determined rates.

To assist them, we provide vital training on plantations management practices and financial arrangements.

#### UP's Commitment to Plasma Projects

As of December 2020, 1,314 Ha of Plasma have been developed for 815 Plasma Scheme smallholders and another approximately 150-200 Ha is expected to be provided and developed for the communities surrounding the Company's properties in 2021.

#### Smallholders' Field Day

Oil palm smallholders have a critical role in helping us achieve our sustainability goals, they are part of the supply chain providing an estimated 40% of world palm oil production.

As part of our Company's involvement, UP continuously engages with smallholders on an annual basis. In view of the COVID-19 pandemic, the Smallholder's Field Day for 2020 was deferred until the situation of COVID-19 is normalized.

The last Smallholder's Field Day was held on 16th November 2019. We invited 150 smallholders from local districts to visit our plantations to get a better understanding of good agricultural practices, sustainability initiatives and environmental protection.

We are pleased to inform that 134 smallholders attended the Smallholders Field Day. The smallholders were given training sessions in safe handling of pesticides with appropriate Personal Protective Equipment (PPE), effective use of pre-emergent herbicides for less chemical usage, integrated pest management (IPM) mechanized harvesting in order to assist them with their agricultural interests.

Demonstration on fire combat procedures were carried out to further enhance the awareness of neighbouring smallholders in case of fire incidence and were informed to contact UP for emergency assistance within the close vicinity.

We also invited Malaysian Palm Oil Board (MPOB) to provide briefing on the Good Agricultural Practices (GAP) as per MPOB GAP Manual and MSPO certification for smallholders.

#### Food Security

To ensure local food security, as part of the FPIC process, participatory SIA and participatory land-use planning with local peoples, the full range of food provisioning options are considered.

There is transparency of the land allocation process. The intent is to ensure food security and land use choices are considered as part of the formal FPIC process, prior to new developments.

For further details on food security, please refer to our website, [www.unitedplantations.com/sustainability/](http://www.unitedplantations.com/sustainability/).

#### Landscape Approach

A landscape approach is about having community discuss and agree on various sustainability issues that provide an optimal balance between community, commercial and conservation interests.

At United Plantations, we recognize that community engagement, assessment and feedback are an integral part of our global sustainability strategy and initiatives.

The community groups which are key to our operations and which have significant influence over the impacts of our business are carefully identified and are engaged at various platforms and intervals throughout the year.

The community engagement process which includes a proactive and both formal and informal approach, is carried out to fully understand their sustainability concerns and issues with a view to ensuring that their key interests in these areas are aligned with that of our Group.

Partnership with the local communities is crucial to achieve success in Indonesia and it is therefore of utmost importance that the local communities also benefit from UP's development.

For further details on our landscape initiatives, please refer to our website, [www.unitedplantations.com/sustainability/](http://www.unitedplantations.com/sustainability/).



*Discussions in progress with the local community surrounding Kumai Estate on the allocation and distribution of Plasma lots in full compliance to FPIC.*





The newly commissioned MSD3 at Unitata Refinery and important COVID-19 screening taking place before entry.



## Marketplace

Through investment in our people, technology and focus on our supply chain UP is committed to providing high quality certified sustainable and traceable Palm Oil products and services to customers worldwide. We aim for continuous improvement and work towards building long-term relationship through interaction and discussions about sustainability, global, trends, health and nutrition with customers, suppliers, business partners and other stakeholders in the marketplace.

By interactions with customers and other stakeholders, a deep understanding of this responsibility has been developed and provides a healthy avenue for continuous improvement in quality and food safety by minimizing risks throughout the supply chain. Furthermore, UP has gained much knowledge on market trends and have become more capable of responding to them.

### A. Product Quality

Quality is an integral part of UP's corporate culture. It is our strong objective to deliver premium quality products and services that are safe and based on a high level of responsibility.

#### Quality Policy

It is the policy of UP to produce quality palm oil, palm kernels, coconuts and their derived products to the total satisfaction of our worldwide valued customers.

#### Our Quality Philosophy Includes:-

- U**pholding the name and reputation of UP as a top producer of premium quality palm products.
- N**urturing a diligent work force who takes pride in contributing to the development of the Company.
- I**nitiating and innovating positive, progressive work ethics, methods and incorporating a winning culture.
- T**raining of personnel is the key to upgrading our skills and keeping in trend with the marketplace.
- E**nsuring that only high quality palm products are produced, to the satisfaction of our customers' needs.
- D**elivering decisive efforts in Research and Development to continuously improve our working methods, efficiency and product quality.

UP recognizes the importance of safeguarding its customers by ensuring the highest standards in quality as well as environmental and social care.

Our quality focus starts from our Research Department and continues through every aspect of our agricultural, milling and downstream activities until the final product is delivered to our customers.



## B. Certifications for Food Safety, Sustainability and Others

Our Commitment in food safety for sustainable and consistent high-quality products is endorsed by relevant international certification bodies.

### Quality and Food Safety Policy



Unitata and UniFuji are fully committed to producing high quality palm oil products which are safe for human consumption that meets the statutory and legal requirements for the overall satisfaction of her customers.

As part of our commitment to uphold Unitata and UniFuji as premium oil quality producers, much emphasis is placed on quality assurance throughout the various stages in both refineries.

This is evidenced through our continuous investments in the latest process technology and sophisticated analytical equipment that provide accurate and timely controls to ensure customer satisfaction on high product quality and food safety.

### Edible Oil Refining and Specialty Fats Production

Attention to quality, investment in production facilities and ongoing product development are priorities in order for Unitata and UniFuji to meet challenging and changing customer demands.

In order to cater for the growing demand of high-quality products our refineries are equipped with automated manufacturing processes such as Neutralization, Bleaching, Deodorization, Fractionation, Interesterification and Packaging of specialty fats and oils.

Thorough process controls and a disciplined manufacturing culture help ensure that quality assurance is in place to comply with customer requirements.

Consumers today are placing an increased focus on safety and health in relation to food production, and demand transparent and traceable supply chains based on processes that reduce processing aids, water, energy and the overall GHG footprint. Furthermore, social care and strong emphasis on human rights for employees are increasingly seen as non-negotiable principles, as well as protection of fragile ecosystems including Peat land and forests.

In UP and all our subsidiaries, we are committed to being a part of this positive change by providing the highest quality of certified sustainable and traceable Palm Oil products and services to customers worldwide.

### Food Safety and Certifications

To keep up with the increasing demand for supply chain traceability and quality, both refineries have obtained numerous local and international certifications as follows:

#### UNITATA:

ISO 9001, HACCP, Halal, Kosher, BRC, FDA, SEDEX, RSPO SCCS, MSPO SCCS, GMP, GMP+ B2 Feed Safety, MeSTI and MPCA.

#### UNIFUJI:

ISO 9001, HACCP, Halal, Kosher, FSSC 22000, FDA, SEDEX, RSPO SCCS, MSPO SCCS, GMP and MeSTI.

As a requirement for the above-mentioned certifications, Unitata and UniFuji are audited annually by the various certification bodies and by customers. To improve and further strengthen our supply chain transparency, Unitata had been audited under SMETA (Sedex Members Ethical Trade Audit) a platform that encompass four pillars of responsible practices, ie. Labour, Health and Safety, Environment and Business Ethics. In March 2020, UniFuji has been audited by Verite and Arche Advisors, two independent and non-profit organizations, with the purpose of transparently improving safety and human rights gaps within our supply chain.



Certified sustainable and traceable specialty fats products are packed under stringent hygienic conditions in our state-of-the-art filling plant at Unitata.

In addition, Unitata is continuously auditing and assessing our key suppliers of raw materials, packaging, and ingredients based on our established risk assessment procedures. All packed products are traceable to their raw materials including additives and packaging materials via batch and code numbers printed on the labels, which meet the requirements of the Malaysian Food Act and the requirements of the respective export markets. Furthermore, Unitata and UniFuji have established and validated our process controls to consistently minimize the risk of contaminants and meet the highest food safety standards.

Both refineries also emphasize on the element of food defence as part of product security. This assures the protection of our products from malicious contamination, adulteration or theft, and in this connection, relevant food safety training is of high priority for all employees in order to keep abreast with the increasingly demanding food safety requirements.

#### LOW 3-MCPD, Glycidyl Esters and MOSH & MOAH

3-MCPD and Glycidyl Esters are contaminants formed during the processing (refining) of edible oils and fats and have become a topic of concern for vegetable oil refiners and consumers based on a report published by the European Food Safety Authority (EFSA) in May 2016.

The EFSA Panel on Contaminants in the Food Chain (CONTAM Panel) published the results of its assessment of the safety of 3-MCPD and Glycidyl esters with respect to human health. Available evidence from animal studies indicates that kidney toxicity is the most critical health effect of 3-MCPD in rats. Using this data, EFSA established a tolerable daily intake (TDI) for 3-MCPD for humans which represents the maximum amount that can be consumed daily over a lifetime without being harmful to health. It includes a very large margin of safety.

The TDI for 3-MCPD has been calculated as 0.8 micrograms per kilogram of body weight per day ( $\mu\text{g}/\text{kg}$  bw per day.)

In line with our focus on sustaining and improving the production of high quality products within our Group much attention is directed towards reducing contaminants in our supply chain. This dedicated focus has enabled us to produce refined palm oil with levels of 3-MCPD and Glycidyl Esters that are amongst the lowest in the industry.

This is a testimony to more than 4 decades of research activities undertaken at our Unitata refinery combined with our Group's dedicated quality commitment within all parts of our supply chain.

#### MOSH and MOAH

Of nearly equal reputé in being a contaminant to final oils and fats is the new and emerging contaminant called Mineral Oil Hydrocarbons (MOH). It encompasses two main sub groups namely saturated hydrocarbons, generally present at a ratio of 80/20 with MOAH trailing behind MOSH.

MOSH is believed to accumulate in human tissue and cause adverse effects to the liver while MOAH, the greater menace of the two, is reported to be genotoxic carcinogens and may cause damage to the DNA leading to cancer. Hitherto, there has been no binding threshold limits set by the EU legislature save for Germany. Currently, customers favour suppliers whose thresholds, through consensus, are guided by the rule as low as reasonably achievable, ALARA.

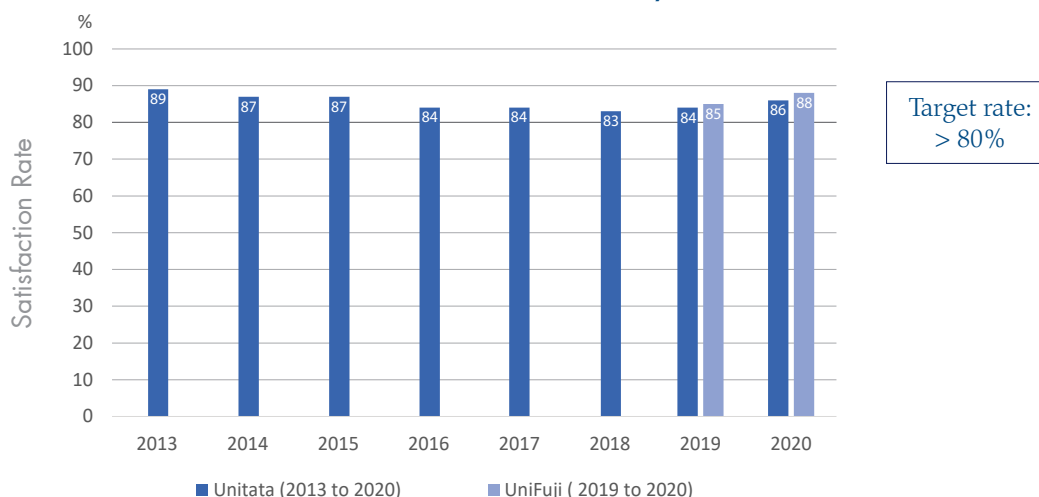
In this respect a task force on MOSH/MOAH chaired by our CED was set up in 2018 to initiate a clear goal to meet the ALARA levels. Since then, baseline occurrence of the contaminant has been drawn and ensuing mitigation efforts have been carried out both through the plantation, mill and the refineries. As a result of these stringent quality controls and assessments, UP, Unitata and UniFuji are today able to meet the very stringent customer demand for oils used in especially the production of infant formulas. We are committed to further reducing the levels of these contaminants to the benefit of the customers globally.



*Oil blends for the production of Infant Formula products being prepared for Unitata's key customer and business partner, AAK.*



## Customer Satisfaction Survey



### Customer Satisfaction

At Unitata and UniFuji, the annual customer satisfaction survey is used to measure how our finished products meet our customer's expectations. This annual survey is an important measure in relation to our continuous improvement attitude and provides us with an important understanding of our service and collaboration with our customers based on their valuable feedback.

The survey focuses on three key areas which are:

- (i) Product quality
- (ii) Service quality
- (iii) Delivery timeliness

The results are analysed and tabulated in an appropriate graphical form for presentation at the management review meetings as well as during the various certification audits throughout the year.

Besides that, Unitata and UniFuji also adopt an on-going communication method with customers to keep them engaged with their products.

Regular communication with customers enables Unitata and UniFuji to develop products and provide the necessary service to ensure a continuous customer satisfaction which cannot be taken for granted in the competitive business of refining.



*Stainless steel tanks for the storage of high quality products at Unitata.*

## MSPO and RSPO Supply Chain Certifications

In 2008, before RSPO Supply Chain Certification was introduced, Unitata was the first company to ship refined RSPO certified segregated palm oil to customers worldwide which was verified by independent surveyors.

In December 2010, Unitata received its Supply Chain Certification and have since been able to handle and deliver first class sustainably certified and segregated palm and palm kernel oil solutions to customers worldwide based on the RSPO supply chain traceability system.

UniFuji received its RSPO Supply Chain Certification in September 2018 and is able to deliver high quality certified and sustainable palm based products under the segregated RSPO supply chain solution to customers worldwide.

The RSPO cooperates with the traceability service provider, UTZ who through the RSPO Trace system ensures that the necessary traceability is in place in order for proper certification of palm and palm kernel oil that is used in the refining process.

The supply chain certification is the buyers' and consumers' guarantee that the palm oil or palm kernel oil used in the production of finished goods actually comes from the claimed RSPO source.

This requires records to be kept to demonstrate the volume of CPO or CPKO sold as sustainable oil does not exceed the amount produced by the upstream RSPO certified mills.

In November 2017, Unitata had their first verification audit by one of their key customers for supply of RSPO certified palm kernel oil materials. The audit was conducted independently by a third party auditor appointed by the customer. It was a full traceability audit on the origin of materials supplied by Unitata Bhd.

It was a successful audit and the auditor concluded that the material sourced by customer is 100% traceable throughout the supply chain.

In 2019, Unitata and UniFuji successfully achieved the MSPO supply chain certification.

### Product labelling

Unitata had received a cargo detention notice, for one of our consignment of packed products, from the US FDA authority in March 2017 for supply of our packed products due to insufficient nutritional information on product labelling.

Necessary changes to the nutritional information on our product labelling was made on FDA recommendations to ensure that future exports are in full compliance with FDA regulations. Since then, there have been no further issues in terms of export of our packed products into USA.

## C. Sustainable and Traceable Supply Chain

Our Commitment to ensure that the certified sustainable palm oil and palm kernel oil used in the production of finished goods actually came from sustainable sources.

In the following section, we will be providing an overview on both our upstream (Plantations) and downstream (Refining) business activities in relation to our focus on improving traceability in our supply chain for the benefit of our global customers and stakeholders in general.

As an important part of UP's traceability focus, we strive to ensure that our supply chain (direct and indirect suppliers) live up to our Group's commitment towards the No Deforestation, No New Development on Peat and No Exploitation of People and Local Communities (NDPE) Policy.

The interest for certified sustainable and segregated palm oil is increasing as many global brand manufacturers have committed to only use RSPO certified and segregated palm oil solutions. Traceability is therefore important in order to ensure that the certified sustainable palm oil and palm kernel oil used in the production of finished goods actually come from sustainable sources.

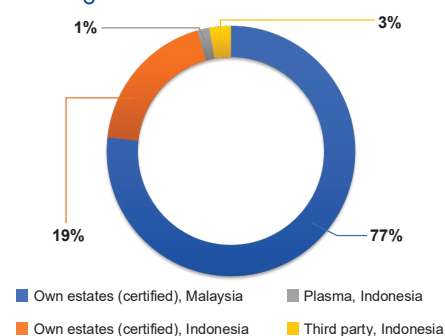
### (a) Upstream Operations

All CPO sourced in Malaysia is RSPO certified under the Supply Chain model of Identity Preserved (IP). In Indonesia, we have undergone RSPO certification for part of our plantations (with HGU certificates) and have successfully achieved RSPO certification for these areas in 2018. Currently the mill is RSPO certified under the Supply Chain model of Mass Balance (MB).

Full certification and production of RSPO certified and segregated palm oil traceable to the mill and plantations is expected to be reached in 2023 for our Indonesian operations in tandem with the issuance of land use certificates by the local Government authority for our properties (Inti) and Plasma land.

In this connection, we are increasing awareness by retraining and carrying out audits within all operational areas of our group. The results of these measures will be monitored and incorporated in our future reports or Company Website as part of our continuous improvement commitment.

Origin of FFB Processed at UP Mills





| UP's Mills          | Percentage from own plantations (%) | Percentage from third party suppliers (%) | Traceable to plantations (%) |
|---------------------|-------------------------------------|---|------------------------------|
| UIE                 | 100                                 | 0   | 100                          |
| Jendarata           | 100                                 | 0   | 100                          |
| Ulu Bernam Optimill | 100                                 | 0   | 100                          |
| Ulu Basir           | 100                                 | 0   | 100                          |
| Lada (PTSSS)        | 81.25                               | 18.75                                     | 100                          |

The location of UP owned mills is tabulated below:

| Name of Mills       | GPS Coordinates |              |
|---------------------|-----------------|--------------|
|                     | Latitude        | Longitude    |
| UIE                 | N 4°26'53"      | E 100°43'11" |
| Jendarata           | N 3°51'14"      | E 100°58'06" |
| Ulu Bernam Optimill | N 3°46'19"      | E 101°13'14" |
| Ulu Basir           | N 3°43'28"      | E 101°15'21" |
| Lada (PTSSS)        | S 2°35'24"      | E 111°46'16" |

The location of third-party FFB suppliers for PTSSS is tabulated below:

| Name of FFB Suppliers                | GPS Coordinates |           |
|--------------------------------------|-----------------|-----------|
|                                      | Latitude        | Longitude |
| PT. MML (up to April 2020)           | 540527          | 9756490   |
| Koperasi Tani Bahagia                | 600918          | 9678406   |
| Koperasi Karya Tunggal Jaya          | 589868          | 9728251   |
| CV Inti Sawit Perkasa/ Bapak Iswanto | 591276          | 9708506   |

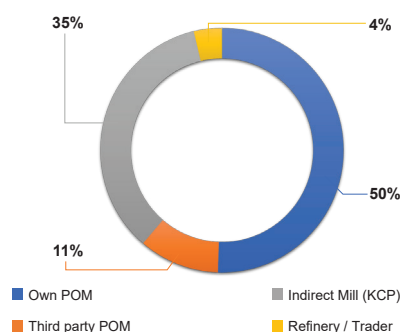
As at 31 December 2020.

## (b) Downstream Operations - Unitata

One of Unitata's key commitments to its customers is to ensure that our finished products can be traced back to its origins, namely palm oil mills and further to the plantation level where possible. Unitata is currently in a favourable position to meet this growing demand due to the direct link with UP's supply of RSPO certified sustainable and segregated palm oil traceable to the plantations.

The traceability of all our raw materials – CPO, CPKO, PPO, and PPKO sourced during 2020 is summarized in the below chart:

Origin of raw material sourced at Unitata Bhd.



| Origin of raw material sourced at Unitata Bhd. (%) |                 |                     |                  |
|--|-----------------|---------------------|------------------|
| Own POM  | Third party POM | Indirect Mill (KCP) | Refinery/ Trader |
| 50.55%   | 10.70%          | 35.00%              | 3.75%            |

Percentage of all palm oil products handled/traded/processed (tonnes) that are RSPO-certified is 61.25% (50.55% + 10.70%)

In Malaysia, 100% of the Crude Palm Oil (CPO) used at our Unitata refinery can be traced back to the mills and plantations. 100% of the CPO produced in Indonesia is traceable to plantations and is sold to neighbouring refineries as we don't have any downstream operations in the country.

All Crude Palm Kernel Oil (CPKO) derived from UP's own production of Palm Kernel (PK) can be traced back to the plantations, however, as the use of CPKO at our refinery exceeds the volume of CPKO derived from our own PK production, we source significant volumes of CPKO from external Kernel Crushing Plant (KCP) of which the main portion only can be traced back to the Palm Oil Mills (POMs).

Going forward, we will be working with third party suppliers to increase the percentage of CPKO that can be traced back to the plantations in line with increased customer demand for traceability.

Our assurance for the level of traceability is based on our ability to identify the parent company, the mill name, mill coordinates, mill certification status from suppliers and plantations from where the crop (FFB) is produced.

The summary on the number of direct supplier mills supplying CPO and PK is tabulated below:

| Raw material | Number of supplying mills | Traceable to plantations | Numbers of supplying mills sourced from own plantations | Percentage sourced from own plantations |
|--------------|---------------------------|--------------------------|---|---|
| CPO          | own mills (4)             | 100%                     | own mills (4)   | 100%                                    |
|              | third party mills (7)     | 100%                     | third party mills (7)                                   | 100%                                    |
| PK           | own mills (4)             | 100%                     | own mills (4)   | 100%                                    |
|              | third party mills (1)     | 100%                     | third party mills (1)                                   | 100%                                    |

As of 31st Dec 2020, total CPO and PK supplying mills is 12 (4 own mills+8 third party mills)

The breakdown on these 12 third-party mills is as per below:

- 7 mills supplying CPO only
- 1 mill supplying PK only
- 0 mill supplying both CPO and PK

This meant total 7 third party supplying mills for CPO and 1 third party mill for PK.

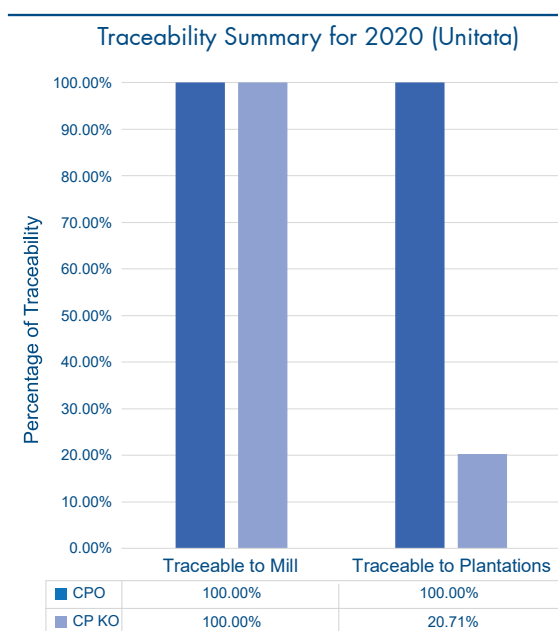
\*All of the above own and third-party supplying mills 100% source from their own plantations.

The summary on the number of indirect supplier mills supplying PK to Kernel Crushing Plants (KCPs) from which we derive CPKO used at Unitata is tabulated below:

| Raw material | Number of KCPs | Number of supplying mills | Traceable to mills (%) |
|--------------|----------------|---------------------------|------------------------|
| PK           | 6              | 84                        | 100                    |

For further details of our direct and indirect supplier mills please refer to [http://www.unitedplantations.com/sustainability/pdf/List%20of%20Direct\\_Indirect%20Mills\\_2019.pdf](http://www.unitedplantations.com/sustainability/pdf/List%20of%20Direct_Indirect%20Mills_2019.pdf)

The percentage of traceability for Unitata is summarized in the chart below:



The traceability for overall combined volume sourced at Unitata for CPO, CPKO and refined products (from external refineries) is tabulated below:

| Summary of the Traceability |         |
|-----------------------------|---------|
| Traceable to Plantations    | 61.25%  |
| Traceable to Mill           | 100.00% |

*\*Updated as at 31st December 2020.*

The percentage of derivatives sourced from intermediary traders/refiners is tabulated below:

|            | Refinery / Trader |
|------------|-------------------|
| Percentage | 3.75%             |

*\*Updated as at 31st December 2020.*

## (b) Downstream Operations - UniFuji

UniFuji sources crude palm oil internally from UP which ensures availability of RSPO certified sustainable and traceable palm oil to produce value added palm fractions to its customers. The origin of raw material sourced in the year 2020 can be summarized as per below table.

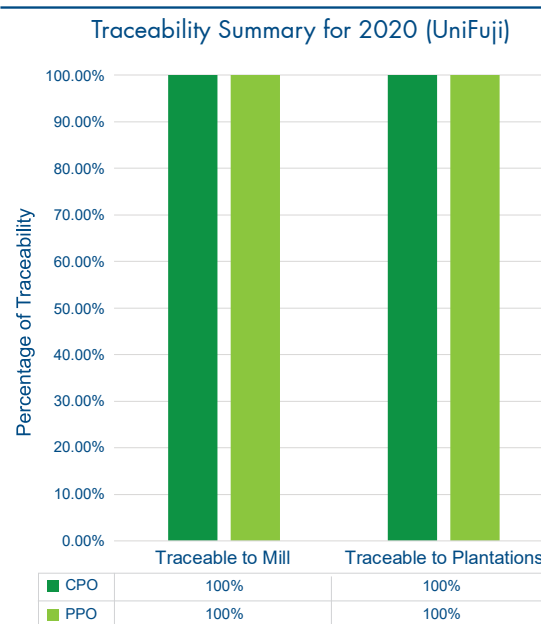
Direct Mill Supplier:

| Raw material | Number of supplying mills | Traceable to plantations | Numbers of supplying mills sourced from own plantations | Percentage sourced from own plantations |
|--------------|---------------------------|--------------------------|---|---|
| CPO          | own mills (3)             | 100%                     | own mills (3)   | 100%                                    |

Indirect Mill Supplier:

| Raw material | Number of supplying mills | Traceable to plantations | Numbers of supplying mills sourced from own plantations | Percentage sourced from own plantations |
|--------------|---------------------------|--------------------------|---|---|
| PPO          | own mills (4)             | 100%                     | own mills (4)   | 100%                                    |

The origin of raw material sourced in the year 2020 can be summarized as per below table.



## Evaluation of Supplier' Sustainable Commitment

As a part of our sourcing policy and continuous improvement focus, we engage with suppliers to improve practices on the ground and strengthen our supply chain and thereby ensure positive developments in the sustainable palm oil production journey. An important step towards improving our sustainability within economic, environmental and social areas of our business, we have invited our suppliers to join us along the journey.

Our aim is to improve sustainability in our supply chain and ensure that our suppliers join us on this journey through close collaboration. Our approach to engagement includes conducting meetings, self-assessment questionnaire (SAQ), supplier audits, on-site verification and follow-up related to food safety as well as MSPO and RSPO certifications.



At the same time, we also assist our suppliers to improve the scores of SAQ to meet the commitment in our Responsible Palm Oil Sourcing Policy and Code of Conduct.

### (A) Upstream Operations

At UP we have Self-Assessment Questionnaire (SAQ) to evaluate our suppliers within the upstream business area. Through engagement we discuss findings and explain and promote policies on health and safety, workers' rights as well as our expectations on adherence to our code of conduct and policies of sustainable palm oil. For our third party FFB suppliers in Indonesia, we conduct site visits and trainings to improve good agricultural practices and promote sustainable palm oil policies and its implementation on ground. The training sessions include emergency response on accident (first aid), safe handling of pesticides with appropriate Personal Protective Equipment (PPE), effective use of pre-emergent herbicides for less chemical usage, integrated pest management (IPM) and mechanized harvesting in order to assist them with their agricultural interests. In addition, demonstration on fire combat procedures were carried out to further enhance the awareness of neighbouring smallholders in case of fire incidence and were informed to contact UP for emergency assistance within close vicinity. We also explain UP's company policies specifically on our No Deforestation, No Peat and No Exploitation (NDPE) commitment as well as our suppliers code of conduct. However in 2020, we were unable to conduct any site visits nor trainings as per our annual training programme due to COVID-19 pandemic. This is nevertheless expected to resume during 2021.

### (B) Downstream Operations

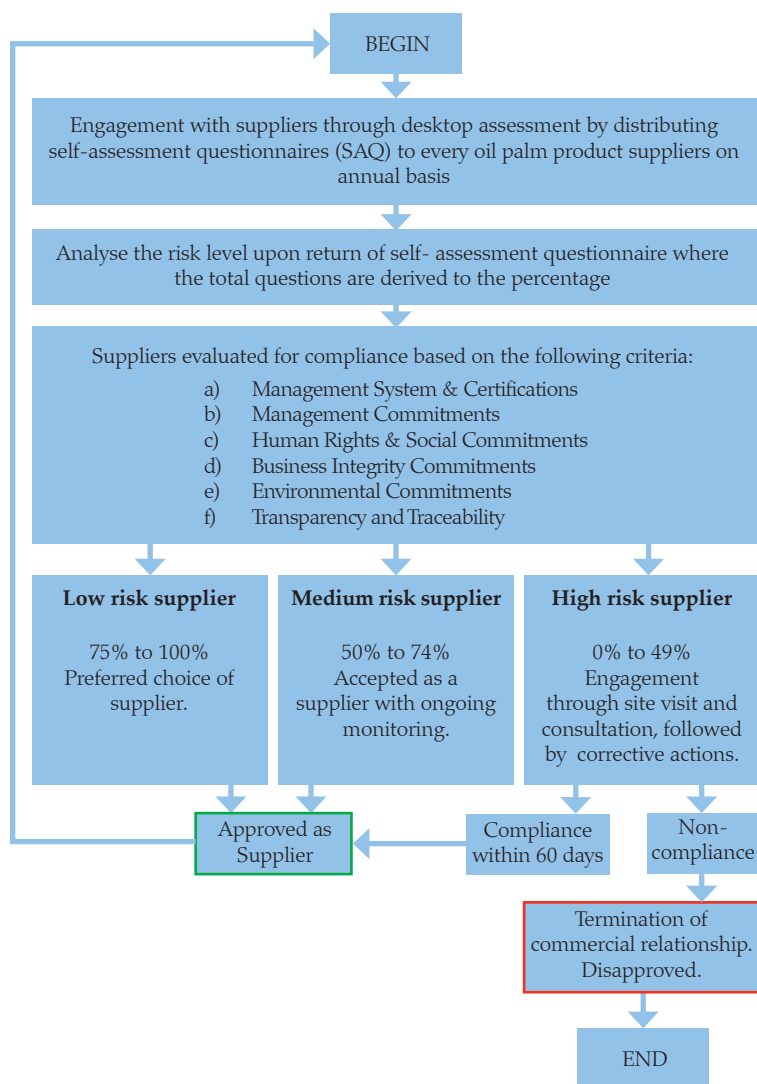
At Unitata and UniFuji, we have developed a Self-Assessment Questionnaire (SAQ) which is used annually to engage with our suppliers. This enables us to understand the current status of suppliers and their commitments to adhere to our Responsible Palm Oil Sourcing Policy. Through this engagement, we categorize them as high risk, medium risk and low risk suppliers for further engagement.

The SAQ is sent directly to the below raw material suppliers:

| UNITATA                   | UNIFUJI            |
|---------------------------|--------------------|
| Crude Palm Oil            | Crude Palm Oil     |
| Crude Palm Kernel Oil     | Processed Palm Oil |
| Processed Palm Oil        |                    |
| Processed Palm Kernel Oil |                    |

In the spirit of collaboration and transparency, our Responsibility Palm Oil Sourcing Policy is discussed with the above suppliers to ensure that they live up to our policies and code of conduct across their entire operations in order to minimize and mitigate sustainability risks. If a supplier in our supply chain is categorized as high-risk based on the mentioned SAQ, we will conduct on-site assessments and engage with the supplier to agree to a reasonable time-bound action plan including further engagement to improve their SAQ score and thereby meet our Responsible Palm Oil Sourcing Policy requirements and commitments. In addition to the above, Unitata and UniFuji also carry out supplier audits on food safety and quality to evaluate risk materials, supplier's management systems, obtain their certificates to ascertain food safety and quality standards, as well as evaluate their hygiene and sanitation compliance.

The process to engage and assess our downstream suppliers is indicated in the flowchart below:



In the event that any suppliers found violating or breaching the above policies or our Supplier Code of Conduct and thereby is viewed as a high-risk supplier (self-assessment scores below 50%), UP/Unitata/UniFuji shall immediately request for corrective measures to be implemented with a 60 days time-bound action plan and further engagement to ensure the suppliers live up to our Responsible Palm Oil Sourcing Policy. We will moreover through dialogue and co-operation, encourage, and coach the supplier to implement the action plan by providing necessary support to see how challenges can be overcome and implemented for positive change. If a supplier is unable or unwilling to take the necessary actions to conform to the expectations outlined in our policy, UP/Unitata /UniFuji will as a last resort terminate its commercial relationship with the supplier.

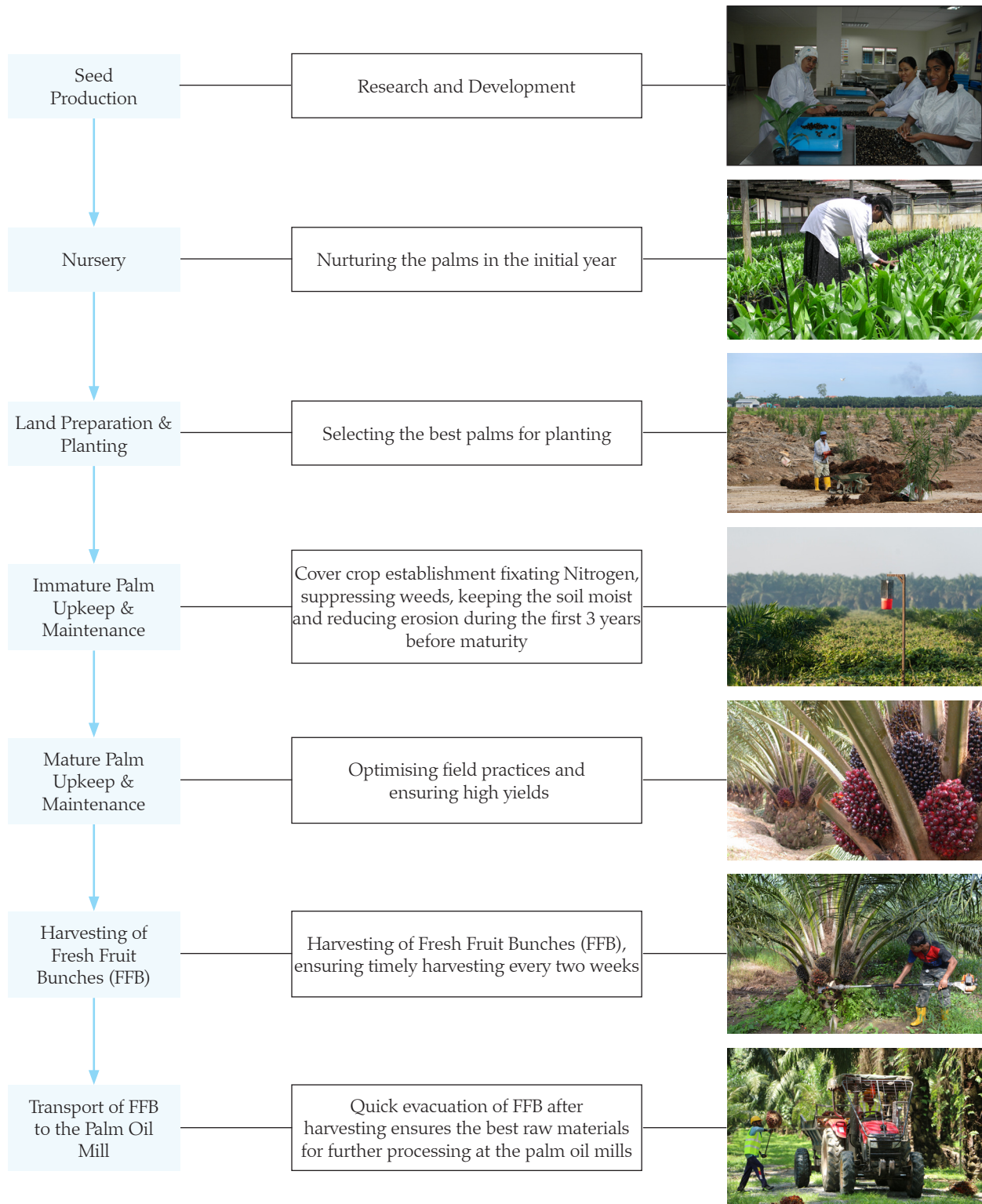
Percentage of suppliers (FFB, CPO, CPKO and processed palm oil) that have been self-assessed to the key elements of Responsible Sourcing:

| Suppliers' Assessment            | Upstream | Downstream (Unitata) | Downstream (UniFuji) |
|----------------------------------|----------|----------------------|----------------------|
| Percentage of suppliers assessed | 100%     | 100%                 | 100%                 |
| Low risk supplier                | 100%     | 100%                 | 100%                 |
| Medium risk supplier             | 0%       | 0%                   | 0%                   |
| High risk supplier               | 0%       | 0%                   | 0%                   |

\*As at 31st December 2020.

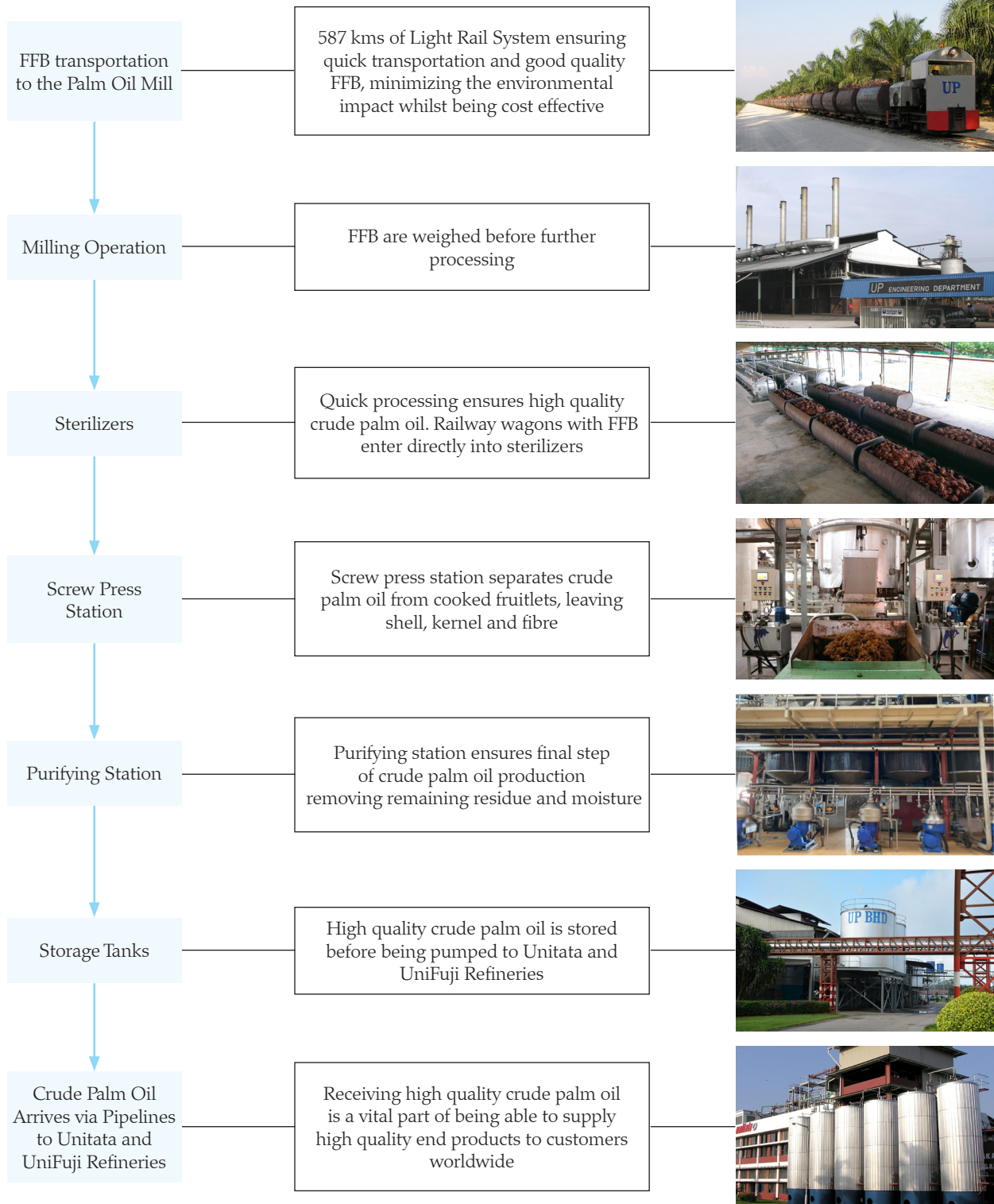
# Commitment to quality

## Good agricultural practices

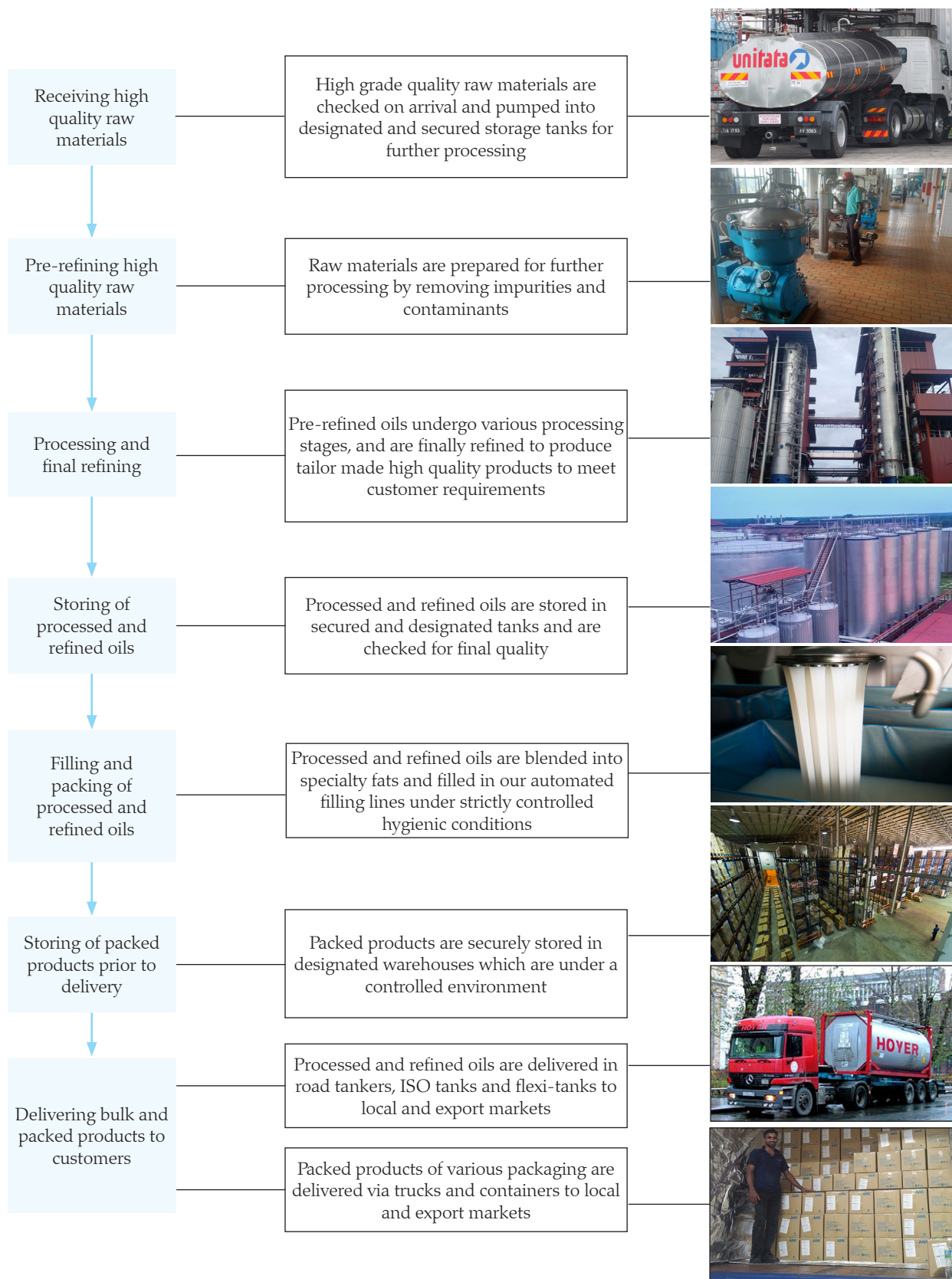




## Efficient fruits evacuation and processing at the palm oil mill



## Food safety and quality focus at the refinery





# Independent Limited Assurance Report

Relating to United Plantations Berhad's Annual Report for the year ended 31 December 2020.

## To the Directors of United Plantations Berhad

We, KPMG PLT ("KPMG" or "We"), have been engaged by United Plantations Berhad ("United Plantations" or "UP") and are responsible for providing a limited assurance conclusion in respect of the Selected Sustainability Information for the year ended 31 December 2020 to be included in the Annual Report 2020 ("the Report") as identified below ("the Selected Sustainability Information").

## Management's Responsibilities

The management of United Plantations ("Management") is responsible for the preparation and presentation of the Selected Sustainability Information in accordance with Management's calculation methodologies and the information and assertions contained within it and for establishing and maintaining appropriate performance management and internal control systems from which the reported performance information is derived.

Management is responsible for preventing and detecting fraud and for identifying and ensuring that United Plantations and its subsidiaries (hereinafter referred to as "UP Group", which includes UP operations in Malaysia and Indonesia) complies with laws and regulations applicable to its activities.

Management is also responsible for ensuring that staff involved with the preparation and presentation of the description and Report are properly trained, information systems are properly updated and that any changes in reporting encompass all significant business units.

## Our Responsibility

Our responsibility is to carry out a limited assurance engagement and to express a conclusion based on the work performed. We conducted our engagement in accordance with International Standard on Assurance Engagements ("ISAE") 3000 (Revised) Assurance Engagements other than Audits or Reviews of Historical Financial Information issued by the International Auditing and Assurance Standards Board. That Standard requires that we plan and perform the engagement to obtain limited assurance about whether the Selected Sustainability Information is free from material misstatement.

## Selected Sustainability Information

Selected Sustainability Information includes the following data for the year ended 31 December 2020:

1. Total average earnings per worker per month;
2. Lost time injury frequency rate;
3. Fatal accident rate;
4. Domestic water consumption;
5. Mill water consumption in processing Fresh Fruit Bunches ("FFB");
6. Usage of pesticides / herbicides;
7. Local and international certifications, and Roundtable on Sustainable Palm Oil ("RSPO") certifications;
8. Area planted on peat (hectareage as per the peat soil map from United Plantations Research Department ("UPRD");
9. Percentage of suppliers (FFB, Crude Palm Oil ("CPO"), Crude Palm Kernel Oil ("CPKO") and processed palm oil) that have been self-assessed to the key elements of UP's Responsible Sourcing Policy; and
10. UP's Suppliers' engagement and assessment/programme to support suppliers (FFB, CPO, CPKO and processed palm oil).

The boundary of the Selected Sustainability Information included in the Annual Report 2020 represents the entire UP Group, except for:

- Operations in UniFuji Sdn Bhd, Malaysia, except for Lost Time Injury Frequency Rate and Fatal Accident Rate

## Procedures Performed over Selected Sustainability Information

A limited assurance engagement on the Selected Sustainability Information consists of making inquiries, primarily of persons responsible for the preparation of information presented in the Report, and applying analytical and other evidence gathering procedures, as appropriate. These procedures include:



- Virtual interviews with Senior Management and relevant staff at corporate and operating sites;
- Inquiries about the design and implementation of the systems and methods used to collect and process the information reported, including the aggregation of source data into the Selected Sustainability Information;
- Physical visits to five (5) operating sites, selected on the basis of a risk analysis including the consideration of both quantitative and qualitative criteria; and
- Comparing the information presented in the Selected Sustainability Information to corresponding information in the relevant underlying sources to determine whether all the relevant information has been included in the Selected Sustainability Information and prepared in accordance with Management's calculations methodologies.

The procedures performed in a limited assurance engagement vary in nature and timing from, and are less in extent than for, a reasonable assurance engagement and consequently the level of assurance obtained in a limited assurance engagement is substantially lower than the assurance that would have been obtained had a reasonable assurance engagement been performed. Accordingly, we do not express a reasonable assurance opinion.

### **Our Independence and Quality Control**

We have complied with the independence and other relevant ethical requirements of the Code of Ethics for Professional Accountants issued by the International Ethics Standards Board for Accountants ("IESBA"), which is founded on fundamental principles of integrity, objectivity, professional competence and due care, confidentiality and professional behavior.

KPMG applies International Standard on Quality Control 1 and accordingly maintains a comprehensive system of quality control including documented policies and procedures regarding compliance with ethical requirements, professional standards and applicable legal and regulatory requirements.

### **Inherent Limitations**

Due to the inherent limitations of any internal control structure it is possible that errors or irregularities in the information presented in the Report may occur and not be detected. Our engagement is not designed to detect all weaknesses in the internal controls over the preparation and presentation of the Report, as the engagement has not been performed continuously throughout the period and the procedures performed were undertaken on a test basis.

### **Our Conclusion**

Our conclusion has been formed on the basis of, and is subject to, the matters outlined in this Independent Limited Assurance Report.

We believe that the evidence we have obtained is sufficient and appropriate to provide a basis for our conclusion.

Based on the procedures performed and evidence obtained, as described above, nothing has come to our attention that would lead us to believe that the Selected Sustainability Information included in the Report for the year ended 31 December 2020, is not presented, in all material respects, in accordance with Management's calculation methodologies.

### **Restriction of use of our Independent Limited Assurance Report**

Our Independent Limited Assurance Report should not be regarded as suitable to be used or relied on by any party wishing to acquire rights against us other than United Plantations, for any purpose or in any other context. Any party other than United Plantations who obtains access to our Independent Limited Assurance Report or a copy thereof and chooses to rely on our Independent Limited Assurance Report (or any part thereof) will do so at its own risk. To the fullest extent permitted by law, we do not accept nor assume responsibility and deny any liability to any party other than United Plantations for our work, for this Independent Limited Assurance Report, or for the conclusions we have reached.

Our Independent Limited Assurance Report is released to United Plantations on the basis that it shall not be copied, referred to or disclosed, in whole (save for United Plantation's own internal purposes) or in part, without our prior written consent.



KPMG PLT (LLP0010081-LCA)  
Petaling Jaya  
20 February 2021



## Glossary

|   |  |
|---|--|
| Biodiversity (BioD)                       | The diversity (number and variety of species) of plant and animal life within a region.  |
| Biological Oxygen Demand (BOD)            | The amount of oxygen used when organic matter undergoes decomposition by micro- organisms. Testing for BOD is done to assess the amount of organic matter in water.  |
| Carbon Footprint                          | A measure of the total amount of greenhouse gases, including carbon dioxide, methane and nitrous oxides, emitted directly or indirectly by an organisation, event, product or person.  |
| Child Labour                              | According to the International Labour Organization (ILO) core labour standards, minimum age should not be less than 16 years old.  |
| CO <sub>2</sub> Equivalents               | Carbon dioxide equivalents (CO <sub>2</sub> eq) provide a universal standard of measurement against which the impacts of releasing (or avoiding the release of) different greenhouse gases can be evaluated.   |
| Crude Palm Oil (CPO)                      | Oil produced from oil palm fruits in milling process.  |
| Creating Shared Value (CSV)               | A responsibility to manage our resources resourcefully and engage in activities that optimize return for shareholders and the society we operate in.   |
| Deforestation                             | Defined by UP as direct human-induced conversion of forest to non-forests, with an exception for small scale low intensity subsistence conversion by indigenous peoples and forest dependent traditional communities (consistent with RSPO P & C as well as Indonesian laws, Environmental Impact Assessments (EIA) and High Conservation Value Assessment (HCV).  |
| Effluents                                 | Water discharged from one source into separate body of water, such as mill process water.  |
| ERT                                       | Emergency Response Team  |
| Forced Labour                             | A person who is coerced to work under the threat of violence, intimidation, or undue stress of penalty.  |
| Free, Prior and Informed Consent (FPIC)   | The principle that a community has the right to give or withhold its consent to proposed projects that may affect the lands they customarily own, occupy or otherwise use.   |
| Fresh Fruit Bunches (FFB)                 | Bunch harvested from the oil palm tree. The weight of the fruit bunch ranges between 10 kg to 40 kg depends on the size and age.   |
| FDA                                       | Food and Drug Administration   |
| Global Reporting initiative (GRI)         | A multi-stakeholder standard for sustainability reporting, providing guidance on determining report content and indicators.  |
| Greenhouse Gas (GHG) emissions            | Greenhouse gas or carbon emissions are gasses in an atmosphere that absorb and emit radiation within the thermal infrared range. This process is the fundamental cause of the greenhouse effect. The primary greenhouse gases in the Earth's atmosphere are water vapor, carbon dioxide, methane, nitrous oxide, and ozone.  |
| HRSS                                      | Human Resources Sustainability and Safety  |
| High Conservations Value (HCV)            | The concept of High Conservation Value Forests (HCVF) was first developed by the Forest Stewardship Council (FSC) in 1999 as their ninth principle. The FSC defined HCVF as forests of outstanding and critical importance due to their environmental, socio-economic and cultural biodiversity and landscape value.   |
| High Carbon Stock (HCS)                   | The HCS Approach is a methodology to avoid deforestation in land development. The approach stratifies the vegetation on an area of land into different classes using analyses of satellite images and field plot measurements. Each vegetation class is validated through calibrating it with carbon stock estimates in the above-ground tree biomass.             |
| Hak Guna Usaha(HGU)                       | The right to enjoy immovable property of another person with the obligation to pay the annual income to the landowner.   |
| ILO (International Labour Organisation)   | Is a tripartite world body representative of labour, management and government, and is an agency of the United Nations. It disseminates labour information and sets minimum international labour standards called “conventions”, offered to member nations for adoption.   |
| Integrated Pest management (IPM)          | A pest management system that in context of the associated environment and the population dynamics of the pest species utilizes all suitable techniques and methods in as compatible a manner as possible and maintains the pest population at levels below those causing economically unacceptable damage and loss.   |
| IUCN Red List                             | Based in Switzerland, the International Union for Conservation of Nature and Natural Resources (also known as The World Conservation Union) is an organisation involved in the preservation of natural resources. IUCN publishes the Red Data Book, which lists the endangered species of every nation.  |
| Identity Preserved/ IP                    | Certified sustainable palm oil is physically separated from other certified and non-certified palm oil throughout the supply chain, i.e from the RSPO mill through to the end-user.  |
| Oil Extraction Rate                       | The amount of oil extracted from oil palm fruit at a mill. Crude palm oil (CPO) is extracted from the flesh; palm kernel oil (PKO) from the nut.   |
| Mass Balance                              | Certified sustainable palm oil and non-certified palm oil is mixed to avoid the cost of keeping the two quantities controlled. The mass balance system is constructed in such a way that volumes of RSPO certified products shipped will never exceed volumes received by the end-user.  |
| Mature Oil Palm                           | After planting, the oil palm tree is classified as immature until fresh fruit bunches are produced, which is approximately 30 months later, whereupon the oil palm tree is classified as mature.   |
| MOSH                                      | Mineral Oil Saturated Hydrocarbons   |
| MOAH                                      | Mineral Oil Aromatic Hydrocarbons  |
| Non-Governmental Organisation (NGO)       | Is used in this report to refer to grassroots and campaigning organisations focused on environmental or social issues.   |
| Palm oil Mill effluent (POME)             | By-product of processed fresh fruit bunch (FFB).   |
| Peat                                      | Peat is an accumulation of partially decayed vegetation matter. Peat forms in wetlands or peat lands, variously called bogs, moors, muskegs, pocosins, mires, and peat swamp forests.  |
| Plasma schemes                            | A programme initiated by the Indonesian government to encourage the development of smallholders’ plantations with the assistance and cooperation of plantation companies (the nucleus) which assist and support the surrounding community plantations (the plasma).  |
| Palm Kernel (PK)                          | Seed of the oil palm fruit, which is processed to extract palm kernel oil and other by-products.   |
| Roundtable on sustainable palm oil (RSPO) | A non-governmental multi-stakeholder organisation based in Kuala Lumpur, Malaysia. The organisation has developed a certification scheme for sustainable palm oil.   |
| Social Impact Assessment                  | A process of analysing, monitoring and managing the intended and unintended, both positive and negative social consequences of planned interventions (policies, programs, plans, projects) and any social change processes invoked by the interventions. Its primary purpose is to bring about a more sustainable and equitable biophysical and human environment. |
| Segregated/ SG                            | Certified sustainable palm oil is physically separated from non-certified palm oil throughout the entire supply chain.   |
| Stakeholders                              | Any group or individual who are affected by or can affect a company’s operations.  |
| Sustainability                            | A term expressing a long-term balance between social, economic and environmental objectives. Often linked to Sustainable Development which is defined as “Development that meets the need of current generations without compromising the needs of future generations”   |
| Traceability                              | Traceability is the capability to track sustainable palm oil along the entire supply chain.  |
| Toxicity                                  | Toxicity measures the degree to which a substance is harmful to living organisms.  |