

A photograph of a natural stream with a Purple Heron and a group of Egrets in a replanting area. The stream flows through a landscape with exposed tree roots on the left bank and a dirt bank on the right. The Purple Heron stands prominently in the middle ground, facing left. In the foreground, a group of Egrets is gathered near the water's edge. The background shows more of the stream and surrounding vegetation.

UP

UNITED PLANTATIONS BERHAD

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SUSTAINABILITY REPORT  
2017

*Many birds species such as the Purple Heron and the Egrets are commonly spotted in replanting areas.*

# Sustainability Report 2017

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## About This Report

(GRI 103-1, GRI 102-48, GRI 102-49, GRI 102-50, GRI 102-51, GRI 102-52)

United Plantations' Sustainability Report 2017 covers the environmental, economic and social performance across all our operational and management activities within the UP Group, which include our plantations and mills in Malaysia - United Plantations Berhad (UPB) and Indonesia - PT Surya Sawit Sejati (PT SSS), our refinery – Unitata Berhad (Unitata) and our bulking installation – Butterworth Bulking Installation Sdn. Bhd. (BBI).

This report focuses primarily on activities carried out within the financial year ended 31 December 2017, with comparable prior year statistics where available and relevant.

For the past 7 years, various aspects of our sustainability practices were presented in our Corporate Social Responsibility section of our Annual Reports, as the Group has always taken pride of its sustainable approach to all aspects of its operations. This Sustainability Report will remain as part of our Annual Report.

The structure and content for this report draws upon guidance from Bursa Malaysia's Sustainability Reporting Framework which comprises amendments to the Listing Requirements, the Sustainability Reporting Guide and six supporting toolkits, and the GRI Sustainability Reporting Standards.

An internal Sustainability Committee at UP 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 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 represent the most critical areas of our Group's business and operations. This exercise resulted in arriving at 22 material sustainability matters which 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.

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

## External Assurance

(GRI 102-56)

GRI recommends the use of external assurance, but it is not a requirement to be in accordance with the Standards. We believe external assurance adds to the credibility and transparency of sustainability reporting.

In this connection, we are pleased to inform our stakeholders that KPMG for the first time has provided limited assurance over 10 selected Key Performance Indicators (KPI's) reported in our 2017 Sustainability Report thereby bringing additional value and credibility to our disclosure. Their assurance report is available on pages 170 - 171.



*One of the many ornamental plants found in our plantation premises.*

## Message From The CED



*The Chief Executive Director, Dato' Carl Bek-Nielsen, on one of his many field inspection rounds.*

We are pleased to present our 2017 sustainability report to you where we describe our Group's sustainability policies and actions in order to share our commitment on sustainability and to show how we are pursuing this in practice.

Ultimately, it is our actions and our behaviour that defines what company we are and for UP, I continue to see sustainability as one of the key pillars in our Group's Strategy which is of paramount importance to our long-term success.

For generations, UP has interweaved Economic Liability, Environmental Responsibility and Social Awareness into the way we conduct our business. This commitment was evidenced by the fact that the world's first RSPO certificate was awarded to UP in 2008.

We remain 100% committed to the RSPO principles and criteria and during 2017, we have as the first plantation-based company in Asia Pacific and Africa gone beyond the

current RSPO standard by being awarded the RSPO NEXT certification for some of our operating units.

This latest initiative raises the bar for sustainable production even further by firmly upholding our Policies on No Deforestation and No New Peat Development already introduced in 2010, as well as strengthening our focus on human rights and the well being of the local community. We see this as necessary for long term commitment for the industry's well-being.

Whilst the sustainability report is a relatively new concept, UP has over the years published updates on our sustainability journey as part of the CSR activities described in our Annual Reports.

We openly acknowledge that much more can be done and intend to work harder at integrating and mainstreaming our sustainability efforts into our operations.



*United Plantations Berhad Non-Executive Director Mr. R. Nadarajan receiving the ACCA MaSRA Commendation Award - Biodiversity on the 25<sup>th</sup> January 2018 from WWF - Malaysia Executive Director/CEO Dato' Dr. Dionysius Sharma, Deputy Minister of Finance II Dato' Lee Chee Leong and ACCA Malaysian President of Advisory Committee Dato' Merina Abdul Tahir.*

In conjunction with this it was nevertheless most pleasing that our commitment to further advance our Group's sustainability goals and objectives summarised in our first official Sustainability Report 2016 were recognised as UP received the ACCA MaSRA Commendation Award for Biodiversity on the 25<sup>th</sup> January 2018.

Bursa Malaysia's move to make sustainability reporting mandatory for listed companies in Malaysia clearly signals the importance for stakeholders to have a chance in evaluating companies based on their sustainability commitments. We strongly support this move.

During 2017, an expanded materiality assessment has 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 Market place.

### Employees

Our employees have been and will always be our core assets remaining 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 wellbeing of our employees and contractors. 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 work place accidents. Whilst we unfortunately had experienced a death of an employee in 2016, we are pleased

to report that this has not been the case in 2017. Much focus and attention continues to be directed towards our main goal of preventing any accidents causing serious bodily injury or death through regular in-house training programmes combined with impromptu safety audits in our mill and on our estates.



*Workers going about their usual work at the nursery.*

### 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 through focusing on good agricultural practices and safeguarding the natural resources.

Finding the right balance between Economy and Ecology is 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 endangerment 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, 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.



One of our Biogas plant. In total to date UP has 5 biogas plants.

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



Commissioning of the Biomass Reciprocating Boiler No 2 at Jendarata Palm Oil Mill.

Unjust subjective accusations keep tarnishing the image of the industry without offering solutions or taking ownership of problems is getting us nowhere thereby negatively impacting the livelihoods of millions of people.

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

UP has since 2004 monitored its greenhouse gas (GHG) emissions and are continuously looking for ways to reduce our carbon footprint throughout our operations and via new innovations.

Following an extensive peer reviewed life cycle analysis completed in 2008 in accordance to the ISO 14000 standards providing a total overview of our GHG emissions, various areas were identified within our production chain in need of much improvement. This increased awareness has since then spearheaded many significant investments such as expanding our

railway lines for crop transportation, erecting biomass boilers in our palm oil mills as well as constructing biogas plants to ensure optimal utilisation of our by-products in the form of empty fruit bunches, shells, fibre and waste water to produce renewable energy thereby reducing our dependency on fossil fuels & with that mitigating our Greenhouse Gas emissions.

UP has come a long way since the establishment of our first biogas plant in 2006 and it is of much satisfaction that we during 2017 completed the construction of our fifth and final biogas plant.

This project has enabled us to reach a milestone of connecting all UP's mills with associated biogas facilities thereby permanently mitigating a significant contributor of Greenhouse Gasses within the oil palm production chain.

Our UIE Electrification Project which enables the conversion of biogas to electricity and exporting this back to the national grid has also been running well during 2017 and contributed positively to the Company.

Furthermore, our Group has since 2013 been exploring ways to lower the particulate emissions from our solid fuel boilers which by law initially should not exceed 400mg/NM<sup>3</sup> at 12% CO<sub>2</sub> content.

However, in 2014, the Department of Environment(DOE) revised the Environmental Quality Act (Clean Air Regulation 2014) and lowered the threshold for emissions to 150 mg/ NM<sup>3</sup> at 12% CO<sub>2</sub> content.

There have been many trials and there have been setbacks in reaching these revised levels, however, in 2015 following concerted efforts and involving investments, a breakthrough was achieved at the Ulu Basir Palm Oil Mill where we have consistently been able to maintain a particulate matter emission of between 116-137 mg/NM<sup>3</sup> at 12% CO<sub>2</sub> content thus fulfilling the DOE's new regulation mentioned above.

This has been further replicated in the Jendarata Palm Oil Mill with the commissioning of the Biomass Reciprocating Boiler No.2 in December 2017 and will also be a part of the design at the new 60 tph Optimill at Ulu Bernam which will replace the old 40 tph mill at Ulu Bernam in February 2018. This will be followed by our UIE (M) Palm Oil Mill by August 2018 after which all of UP's Palm Oil Mills in Malaysia will be equipped and will operate this technology that will benefit the environment.

Conservation of jungle reserves and promoting biodiversity remains of key 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.

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 via Copenhagen Zoo have been extremely fulfilling and helped our Group move towards a professional and dedicated management of our more than 7,500 Ha jungle reserves.

Today, our Biodiversity team more than ever is responsible for mainstreaming environmental concerns into standard operating procedures and whilst there is much to be done, pleasing progress is being made as detailed in this report.

### 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.



*A community project.*

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 and in particular, surrounding 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 the report. Furthermore, continuous improvements were made during 2017 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. Several new spacious houses were built in 2017 with more to come this year both in Malaysia and Indonesia. 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 conceptualise the true spirit of creating shared values (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.

This has opened up market opportunities amongst reputable brand manufacturers and retailers globally who view favourably the assurances of sustainable and traceable palm oil which we have been able to offer customers. During 2017, we have established a total



*A fleet of tankers waiting in queue to load Unitata's products.*

overview of our supply chain and for our up-stream operations, we can identify the plantation from which fresh fruit bunches (FFB) are derived from and the palm oil mills from which the Crude Palm Oil and Palm Kernels are produced.

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 down-stream operations, we have also mapped our supply chain and whilst all our palm oil can be traced back to the plantations 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.



*High quality cooking oil produced at our Unitata Refinery, ready for consumer use.*

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 29-171)

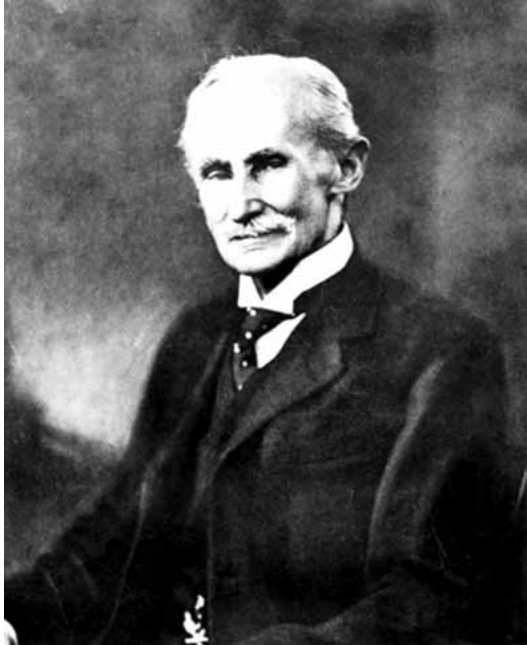
Finally, I thank you for your interest in our sustainability efforts and hope you will find our journey interesting. I would also like to thank our Board of Directors for their continuous support, guidance and interest in this report as well as all our stakeholders including NGOs for their active and valuable participation and inputs that have been 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)



The UP Legacy And Values



*Aage Westenholz,  
Chairman and Founder of UP Ltd (1906-1935)*

UP's commitment to sustainable agriculture originated with its founder, a Danish Engineer & Entrepreneur, Aage Westenholz who established UP in 1906.

Westenholz not only promoted a strong culture of innovation and an imaginative approach to business strategy but also of ethical conduct within plantation agriculture.

He was known for his philosophical ideals of co-operative working and profit sharing and promoted the following concept: "capital and labour ought to co-operate as two hands on the same body guided by one brain."

Westenholz was also known for setting the highest standards for the workforce, within the conditions of the day, and had as early as 1928 established a well-functioning hospital with good facilities and medical personnel to cater for the needs of the employees and their families as well as the communities surrounding the estates.



*Group Hospital 1928*



*Commander William Lennart Grut,  
Chairman of UP Ltd (1935-1949)*

Another key figure during the foundation of UP was Westenholz's brother in-law, a navy officer, Commander William Lennart Grut. The two stalwarts, Westenholz and Grut not only linked together in kinship, also shared common values of Vision, Compassion and Discipline and introduced the first jungle sanctuary (The Grut Sanctuary) as well as the concept of mulching to maintain soil fertility in the 1930's.

The focus on innovation and care for employees combined with ethical values laid down by our pioneers signifies the beginning of UP's early focus on Corporate Social Responsibility (CSR) which has become a part of the Company's DNA and emphasises the responsibility to manage our resources resourcefully and engage in activities that optimize returns for our shareholders and at the same time Creating Shared Value (CSV) for our employees and the society we operate in.

The central premises behind CSV are that the competitiveness of our Company and the health of the communities around us are mutually dependent, thus enabling UP to create economic value by also creating societal value.



Corporate Social Responsibility and Creating Shared Value

## Building Bridges Between Two Nations



*Tan Sri Dato' Seri B. Bek-Nielsen,  
Chairman (1978-1982) and  
Sr. Executive Director of UPB (1971-2003)*



*Tan Sri Haji Basir bin Ismail  
Chairman of UPB (1982-2002)*

The late Tan Sri B. Bek-Nielsen who started his career with UP in 1951, continued the legacy of the early founders through hard work, discipline and being firm but fair throughout his career spanning more than 50 years.

He was instrumental in expanding the Group through technical as well as agronomic innovation focusing on producing palm oil of superior quality.

In 1982 the late Tan Sri Haji Basir took over the chairmanship of UP and together with the late Tan Sri B. Bek-Nielsen ensured that a solid bridge between two Nations, Denmark and Malaysia, was galvanised further.

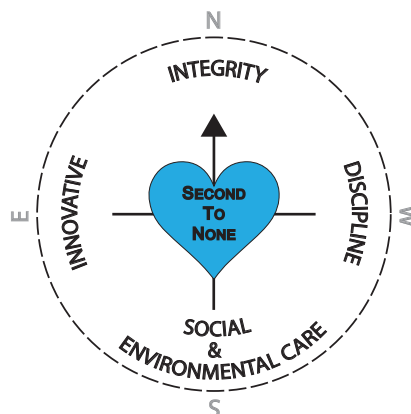
Through this close collaboration the two stalwarts ensured that UP progressed into an internationally recognised Group.

Over the last 112 years since our foundation, UP has been focusing on maintaining social and environmental awareness and striving to the best of our abilities to create a balance between economy and ecology.

This focus resulted in UP being awarded the world's first Roundtable on Sustainable Palm Oil certificate in 2008.

UP firmly believes "That no one person at the top is stronger than the pyramid of people who supports him or her". Emphasis on the attitude of continuous improvement combined with the values of Integrity, Discipline, being Innovative and focusing on Social and Environmental care are key aspects of UP's unique culture which is best described through our motto "Second to None".

### Our Core Values



Our company's unique culture is best described through our motto "Second to None"



*The United Plantation's Museum, a hidden gem of historical artifacts.*

**The UP Museum**

In order to safeguard UPs' rich heritage and as a tribute to the Company's founders and the different generations of employees and their families, suppliers, customers, surrounding communities and others associated to United Plantations in one way or another, the Museum evolved.

The UP Museum had its inception in 2006 in conjunction with United Plantations Centennial celebrations and was officially opened by her Royal Highness Princess Benedikte of Denmark on the 15th September 2006.

The Museum is located modestly in the midst of Jendarata Estate on the grounds of the first Registered Office of the Company and is a institution that houses and cares for a collection of pictures and stories as well as artifact and other objects of historical importance, and is truly a repository of the rich culture of UP encompassing various paraphernalia and memorabilia of the past. During 2017 an upgrade of the UP Museum with new ceiling and lightings have been put in place.



*Concrete crusher & portable boiler circa 1930s*



*Oil palms pollination equipment*



*Calculators circa 1950s*



*Hand Pumps circa 1930s*

## Awards and Recognitions

2003	<ul style="list-style-type: none"> <li>✓ KPMG Shareholder Value Award.</li> <li>✓ Best Commercial Nursery Award from MPOB.</li> <li>✓ Approved supplier to Swiss Supermarket chain, MIGROS based on their criteria on sustainable palm oil by ProForest Consultants (U.K.)</li> </ul>
2004	<ul style="list-style-type: none"> <li>✓ Winner of the highest OER in the Northern Peninsular Region to Jendarata Engineering Department by MPOB.</li> <li>✓ Winner of MPOB's Milling Certificate of Competency -96%-UIE(M) Sdn. Bhd.</li> <li>✓ The Malaysian Government's Award – Winner of the National Most Caring Plantations Employer Award by the Ministry of Human Resources, Malaysia.</li> <li>✓ Winner of the National Occupational Safety &amp; Health Award to Jendarata Estate by the Ministry of Human Resources, Malaysia.</li> </ul>
2005	<ul style="list-style-type: none"> <li>✓ Winner of the Palm Oil Mill Industry Mill Practices and Innovation to Ulu Bernam Engineering Department by MPOB.</li> </ul>
2006	<ul style="list-style-type: none"> <li>✓ Second Prize winner in the 2004 Corporate Governance Survey from the Minority Shareholders Watchdog Group (MSWG).</li> </ul>
2007	<ul style="list-style-type: none"> <li>✓ Certificate of Excellence Award for Occupational Safety and Health in the Agriculture Category 2006.</li> </ul>
	<ul style="list-style-type: none"> <li>✓ Prime Minister's Hibiscus Award 2006/2007 for Notable Achievement in Environmental Performance.</li> </ul>
2008	<ul style="list-style-type: none"> <li>✓ Joint winner (with Shell Malaysia) for the Malaysian Business Corporate Social Responsibility (CSR) Award 2007 for Environmental Performance.</li> </ul>
	<ul style="list-style-type: none"> <li>✓ RSPO Certification –The world's first certified producer of sustainable palm oil by the Roundtable on Sustainable Palm Oil (RSPO).</li> </ul>
	<ul style="list-style-type: none"> <li>✓ Special Award in the Corporate Governance survey 2008 conducted by the Minority Shareholder Watchdog Group in collaboration with the Nottingham University Business School.</li> </ul>
	<ul style="list-style-type: none"> <li>✓ MPOB Award for the highest Oil Extraction Rate (OER) in Peninsular Malaysia and the 2nd highest in Malaysia 2007 to Jendarata Palm Oil Mill by MPOB.</li> </ul>
2009	<ul style="list-style-type: none"> <li>✓ Winner of the Best Managed Estate (Jendarata Estate) by MICCOS (Malaysia International Commodity Conference &amp; Showcase).</li> </ul>
	<ul style="list-style-type: none"> <li>✓ KPMG Shareholder Value Award 2008 for 2nd Place Winner under the Agriculture and Fisheries Sector</li> </ul>
2010	<ul style="list-style-type: none"> <li>✓ KPMG Shareholder Value Award for Winner and Sectorial Winner under the Agriculture and Fisheries Sector.</li> </ul>
2011	<ul style="list-style-type: none"> <li>✓ Winner of the Commodity Industry Award 2011 (Corporate Social Responsibility Category) to Jendarata Estate by the Malaysian International Commodity Conference &amp; Showcase (MICCOS).</li> </ul>
	<ul style="list-style-type: none"> <li>✓ Winner for National Excellent Occupational Safety and Health Award 2011 (Agricultural Category) by the Ministry of Human Resources, Malaysia.</li> </ul>
2013	<ul style="list-style-type: none"> <li>✓ Awarded 3rd placing out of 144 companies under the Best Corporate Social Responsibility Initiatives (CSR) category by the Edge Billion Ringgit Club.</li> </ul>
2014	<ul style="list-style-type: none"> <li>✓ Awarded 2nd placing out of 178 companies under the Best Corporate Social Responsibility Initiatives (CSR) category by the Edge Billion Ringgit Club.</li> </ul>
2016	<ul style="list-style-type: none"> <li>✓ Winner for the Best Corporate Social Responsibility Initiatives (CSR) category by the Edge Billion Ringgit Club (Below RM10 billion market cap).</li> </ul>
2017	<ul style="list-style-type: none"> <li>✓ Awarded 3rd placing out of 184 companies (Plantations)-Sectoral award based on two financial performance indicators by the Edge Billion Ringgit Club: <ul style="list-style-type: none"> <li>- Highest Return on Equity over three years</li> <li>- Highest Return to Shareholders over three years</li> </ul> </li> </ul>
	<ul style="list-style-type: none"> <li>✓ RSPO NEXT Certification - (World's second RSPO NEXT Certification and the first for Asia Pacific and Africa)</li> </ul>
	<ul style="list-style-type: none"> <li>✓ Awarded the ACCA MaSRA Commendation Award for Biodiversity.</li> </ul>

## 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 the UP Group as well as monitoring management’s progress in connection with the Group’s 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).

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.

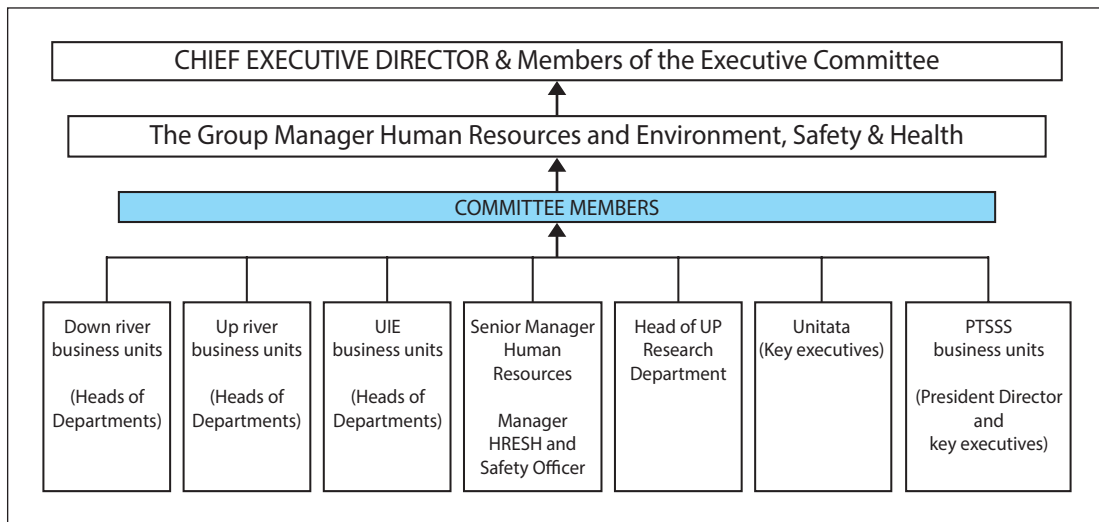
There is also the Group Sustainability Reporting Team (GSRT) headed by Mr. Martin Bek-Nielsen, Executive Director, Finance & Marketing and includes key personal from Finance, Research, HR & Environment, Safety & Health, Share Registrar and Marketing.

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

### Sustainability Governance Management Structure



Group Sustainability Committee



Sustainability matters have been a subject close to the heart of UPB. Officially established in 2003, the GSC (formerly known as Operations and Environment Management Committee) 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.

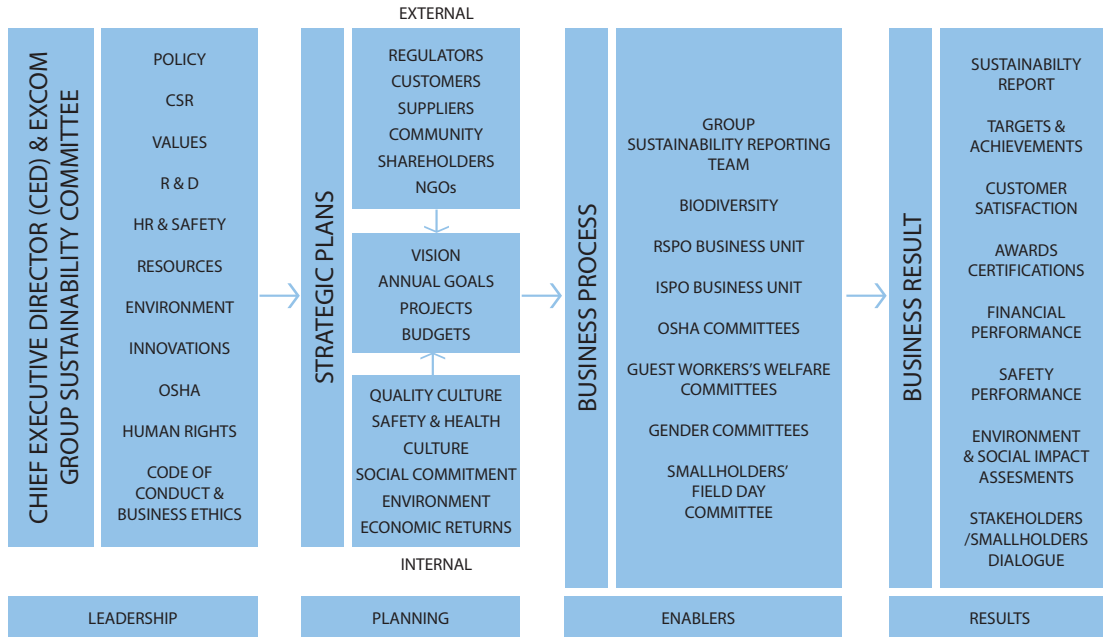
Since the Sustainability Report became mandatory in 2016, Mr. Martin Bek-Nielsen has been briefing the Board, CED and EXCOM on the work of the GSRT and sustainability issues at every official meeting held since July.

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.



*The Group Sustainability Reporting Team at one of their meetings.*

## 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 and budgets.

**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 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 RSPO's Principles and Criteria and following Manuals and SOP's :

- 1) 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 Unitata Refinery

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

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

### Targets and Achievements

Our targets and achievements drive us to continuously improve. In this report, we provide information about our progress of targets and achievements. They include targets in the areas of Certifications, Biodiversity, Climate Change, Community, Employees, Legal Compliance and Economics and others. The targets and the achievements to date provide an overview of our goals over a period of 3 years up to 2019.

Targets and Achievements  
(GRI 102-15)

Objectives	Targets Achieved To date	Target 2017	Status of Target in 2017	Target for 2018	Target for 2019	Addressed by Specific Material Sustainability Matter	Page Reference
<b>Target 1 : Employees</b>							
No child labour (under the age of 18 years, or as per local regulations)			No breaches in compliance reported or observed in external and internal audits			Human & Workers' Rights	67
No forced or trafficked labour in our operations			No breaches in compliance reported or observed in external and internal audits			Human & Workers' Rights	67
No retention of Guest workers' passports		To construct a room with individual passport lockers in Jendarata Est. Div 2 to facilitate free access to their passports without any restrictions	Achieved	Since its construction and evaluation, the Company has decided to replicate the construction of passport lockers in other estates in stages.		Human & Workers' Rights	68
Phasing out of Paraquat	No Paraquat usage policy 2010		Achieved in 2010				81
No work-related fatalities		Zero fatality	Achieved	Zero fatality	Zero fatality	Occupational Safety & Health	82
Reduce Lost Time Injury Frequency Rate (LTFR) below 2014 levels. (12.27)		Introduce a behavioural safety approach	Continuous Improvement (LTFR 9.04)  Achieved 26% lower LTFR from our 2014 levels			Occupational Safety & Health	82
To live up to the UN Guiding Principles on Business And Human Rights	Human Rights Policy 2013  Guest Workers Policy 2014	To complete group wide re-training	Achieved	To establish United Plantations Information Centre in Bangladesh		Human & Workers' Right	67



Objectives	Targets Achieved To date	Target 2017	Status of Target in 2017	Target for 2018	Target for 2019	Addressed by Specific Material Sustainability Matter	Page Reference
<b>Target 2 : Environment (Biodiversity)</b>							
Monitoring and management of HCV, SEIA and conservation areas.	2008		Ongoing monitoring and maintenance of the flora and fauna			Biodiversity & Conservation	86-96
Established the Kingham-Cooper Tree Species Reserve at UIE Estate.	2008		Ongoing monitoring and maintenance of the flora and fauna			Biodiversity & Conservation	100
UP and Copenhagen Zoo established a partnership with UP including establishing a Biodiversity Department	2010		Ongoing partnership			Biodiversity & Conservation	88
Research on raising predators in the Insectary	2012		Ongoing research			Biodiversity & Conservation	86-96
No new oil palm development without RSPO NPP –protocols.	2014		We will comply with RSPO NPP for all future new oil palm plantings			Biodiversity & Conservation	102
Research on Rat control by Leopard cats in collaboration with Copenhagen Zoo	2014		Ongoing research			Biodiversity & Conservation	130
Monitoring and management of HCS	2014		Ongoing monitoring and maintenance of the flora and fauna			Biodiversity & Conservation	102

Objectives	Targets Achieved To date	Target 2017	Status of Target in 2017	Target for 2018	Target for 2019	Addressed by Specific Material Sustainability Matter	Page Reference
<b>Target 3 : Environment (Climate Change)</b>							
Installation of Biomass Reciprocating Boilers	Jendarata Palm Oil Mill in 2006 and Ulu Basir Palm Oil Mill in 2014	Ulu Bernam (Optimill) and Jendarata Palm Oil Mills	Achieved	UIE Palm Oil Mill		GHG Emissions, Discharge & Waste Management	112
No new development of peatland.	2010		Ongoing			GHG Emissions, Discharge & Waste Management	123
Install methane capture in all palm oil mills	2013	Biogas Plant at the Optimill site	Achieved			GHG Emissions, Discharge & Waste Management	112
Measuring GHG emissions for all palm oil operations (33%) reduction since 2004 (achieved in 2015)  (ILUC including conservation)	2015	1.31 kg CO <sub>2</sub> -eq/kg NBD Oil	The results were 1.58 kg CO <sub>2</sub> -eq/kg NBD Oil Despite the higher yield the benefits from the new methane capture and biomass boiler facilities started too late to influence the whole year's outcome.	1.18 kg CO <sub>2</sub> -eq/kg NBD Oil	1.18kg CO <sub>2</sub> -eq/kg NBD Oil  Reduction of UP Carbon Footprint per MT of NPD oil produced by 50% when compared to 2004 levels.  (ILUC including conservation)	GHG Emissions, Discharge & Waste Management	110
To measure the total GHG emissions per year for the UP Group			Ongoing			GHG Emissions, Discharge & Waste Management	131
Conversion of conventional lightings to T5 lights with the potential savings in power consumption by 78 %	2015		Ongoing			GHG Emissions, Discharge & Waste Management	110
To supply electricity to the National Grid derived from the biogas plant at UIE Palm Oil Mill	Export to national grid Achieved in 2016 (Nil flaring)		Ongoing			GHG Emissions, Discharge & Waste Management	112
Monitoring and control of fire across our estates and neighboring areas with adequate firefighting capacity.	Two fire engines and other related equipment for PT SSS purchased.		Monitoring and control ongoing			GHG Emissions, Discharge & Waste Management	83

Objectives	Targets Achieved To date	Target 2017	Status of Target in 2017	Target for 2018	Target for 2019	Addressed by Specific Material Sustainability Matter	Page Reference
<b>Target 3 : Environment (Climate Change)</b>							
Monitoring of fire hot spots		Monitoring of fire hot spots from Global Fire Watch under the WRI Global Forest Watch Tool as monitoring aids.	Ongoing			GHG Emissions, Discharge & Waste Management	83
Installation of VORSEP System at Palm Oil Mills to reduce dust emission	Ulu Basir installed in 2015	Ulu Bernam (Optimill), Jendarata and UIE Palm Oil Mills	Ulu Bernam (Optimill) and Jendarata Palm Oil Mill installed	UIE Palm Oil Mill		GHG Emissions, Discharge & Waste Management	112-113
Water Footprint-reduction by 5% compared to 2015 level of 80 gallons per capita by 2018		60 gallons / capita/day	Malaysian Operation: 58 gallons/capita/day  Indonesian Operation: 66 gallons/capita/day	60 gallons / capita/day	60 gallons / capita/day	GHG Emissions, Discharge & Waste Management	121-122
<b>Target 4 : Community</b>							
PLASMA-schemed smallholders to establish in PTSSS (20% of Company's planted area in Indonesia i.e. 1770 Ha)		450Ha	500Ha Achieved  Total to date 1285.13ha	500Ha		PLASMA Development	146
All community based land conflicts to be addressed in a structured and transparent manner		To address land conflicts according to our established land dispute settlement procedure and to reduce number of cases	Ongoing			Free Prior Informed Consent & Grievance Resolution	136

Objectives	Targets Achieved To date	Target 2017	Status of Target in 2017	Target for 2018	Target for 2019	Addressed by Specific Material Sustainability Matter	Page Reference
<b>Target 5 : Legal Compliance</b>							
Hak Guna Usaha (HGU) permits for UP's land concession (18,663Ha) under PT SSS in Indonesia as per the President of the Republic of Indonesia decree 104, 2015 dated 28 Dec. 2015.	2508.47Ha hectares in Lada Estate obtained in 2005	2000 Ha	SK HGU for 6004.15 Ha obtained.	To further achieve objective	To fully achieve objective	Code of Ethic & Governance	63
<b>Target 6 : Economics</b>							
<u>Malaysia</u>						Product Quality	18
FFBYield Per Hectare		24.53	24.78	25.11			
Oil Extraction Rate		22.33	21.46	21.98			
CPOYield Per Hectare		5.48	5.34	5.52			
<u>Indonesia</u>						Product Quality	18
FFBYield Per Hectare		23.96	22.56	23.68			
Oil Extraction Rate		25.48	23.29	25.50			
CPOYield Per Hectare		6.11	5.25	6.04			

Objectives	Targets Achieved To date	Target 2017	Status of Target in 2017	Target for 2018	Target for 2019	Addressed by Specific Material Sustainability Matter	Page Reference
<b>Target 7 : Certifications</b>							
Migros Sustainability Criteria Audit conducted by ProForest	2003					Certification for Food Safety, Sustainability and Others	39 56
World's first RSPO Certification for all 6* oil mills in Peninsular Malaysia	2008					Certification for Food Safety, Sustainability and Others	58
Achieve RSPO re-certification for all 4 oil mills in Peninsular Malaysia	2013		4 oil mills in Peninsular Malaysia have achieved RSPO Re-certification (3rd Cycle)	ASA 1 for 4 oil mills in Peninsular Malaysia	ASA 2 for 4 oil mills in Peninsular Malaysia	Certification for Food Safety, Sustainability and Others	58
RSPO P&C –PTSSS (Lada Oil Mill)		RSPO & ISPO P&Cs certification of Lada Palm Oil Mill	In progress	RSPO & ISPO Certification for the balance of Lada Palm Oil Mill's supply bases (HGU achieved areas)	RSPO & ISPO Certification for the balance of Lada Palm Oil Mill's supply bases (HGU achieved areas)	Certification for Food Safety, Sustainability and Others	58
RSPO P&C – PTSSS (PLASMA) 1770.00ha		1050ha	In progress 1285.13 Ha	500 Ha		Certification for Food Safety, Sustainability and Others	58
RSPO NEXT		Jendarata Palm Oil Mill and UIE Palm Oil Mill and their supply bases	Achieved (World's second RSPO NEXT Certification and the first for Asia Pacific and Africa)			Certification for Food Safety, Sustainability and Others	58
MSPO Certification of the 4 Palm Oil Mills in UP Malaysia				To seek certification for the 4 Palm Oil Mills in UP Malaysia			60
External Assurance on Sustainability Report			Obtained third party limited assurance on selected information disclosed in the Sustainability Report 2017	To seek third party limited assurance on our sustainability report 2018		Certification for Food Safety, Sustainability and Others	30 170-171

\* UP has got 4 palm oil mills in Malaysia today as 2 of the mills have been decommissioned due to consolidation.

Objectives	Targets Achieved To date	Target 2017	Status of Target in 2017	Target for 2018	Target for 2019	Addressed by Specific Material Sustainability Matter	Page Reference
<b>Target 7 : Certifications</b>							
Unitata – ISO 9001	1995	Annual certification	Achieved	Annual certification	Annual certification	Certification for Food Safety, Sustainability and Others	150
Unitata – HACCP	2003	Annual certification	Achieved	Annual certification	Annual certification	Certification for Food Safety, Sustainability and Others	150
Unitata – Halal	2004	Annual certification	Achieved	Annual certification	Annual certification	Certification for Food Safety, Sustainability and Others	150
Unitata – KOSHER	2005	Annual certification	Achieved	Annual certification	Annual certification	Certification for Food Safety, Sustainability and Others	150
Unitata – BRC	2008	Annual certification	Achieved	Annual certification	Annual certification	Certification for Food Safety, Sustainability and Others	150
Unitata – RSPO SCCS	2010	Re-certification	Achieved	Annual certification	Annual certification	Certification for Food Safety, Sustainability and Others	150
Unitata – GMP	2014	Annual certification	Achieved	Annual certification	Annual certification	Certification for Food Safety, Sustainability and Others	150
Unitata – MESTI	2014	Annual certification	Achieved	Annual certification	Annual certification	Certification for Food Safety, Sustainability and Others	150
Unitata – MPCA	2014			Bi-annual certification		Certification for Food Safety, Sustainability and Others	150
Unitata – FDA	2008	Annual Renewal	Achieved	Annual Renewal	Annual Renewal	Certification for Food Safety, Sustainability and Others	150
Unitata – GMP + B2	2017	To seek certification	Achieved	Annual certification	Annual certification	Certification for Food Safety, Sustainability and Others	49

## Stakeholder Engagement (GRI 102-15, GRI 102-21)

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

The stakeholder 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 stakeholder 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.

We are continuously improving our stakeholder engagement approach which is now evolving into more tailored and targeted engagement sessions with our stakeholders and the following pages provide an overview of the efforts involved in our group's focus on stakeholder engagement.



*United Plantations engages with several hundred guests every year who visit our premises. During this visit on the 13th December 2017, UP had the pleasure in welcoming His Excellency Mr. Jesper Vahr, Danish Ambassador, Her Excellency Mrs. Ane Vahr and Ms Nina Hvid Talvela from the Danish Embassy of Malaysia.*

Overview of Stakeholder Engagement  
(GRI 102-40, GRI 102-42, GRI 102-43)

Stakeholder Group	Specific stakeholders addressed	Type of engagement	Frequency	Areas of interest	Outcomes	Addressed by specific Material Sustainability Matters *	Page Reference
Shareholders & Investors	Shareholders both in Malaysia and in Denmark	<ul style="list-style-type: none"> <li>Engagement survey</li> <li>Annual General Meetings</li> <li>Analysts briefings</li> </ul>	<ul style="list-style-type: none"> <li>At least once a year</li> <li>Once a year</li> <li>Twice a year</li> </ul>	Pollution, carbon footprint, preservation of the ecosystem, sustainable agricultural practices, consistent profitability and dividends from the company, maximisation of shareholder value, employee welfare and equal rights.	Good relationship with shareholders and positive reputation amongst investors, constructive feedback	2 3 4 5 7 8 10 12 19	64 67 72 81 86 102 121 124 153
Customers	Major consumer goods manufacturers, Refineries, and end consumers	<ul style="list-style-type: none"> <li>Engagement survey</li> <li>One-to-one meetings</li> <li>Visits to Estates, Mills and our Refinery</li> </ul>	<ul style="list-style-type: none"> <li>At least once a year</li> <li>Periodic</li> <li>Periodic</li> </ul>	No deforestation, and open burning, Reduction of carbon footprint, Price competitiveness, product quality and food safety, employee welfare, development and improvement of sustainable supply chain of products	Better awareness of UP Group’s commitment to sustainability, and better understanding of our policies, culture and values	7 9 17 18 19 20 21 22	86 110 140 150 153 155 156 156
Employees	Executives, staffs and workers	<ul style="list-style-type: none"> <li>Annual employee survey,</li> <li>Operations and Environment Management Committee meeting</li> <li>Gender committee meetings,</li> <li>Guest Workers’ Welfare Committee</li> <li>Occupational Safety &amp; Health Committee</li> <li>Internal trainings</li> </ul>	<ul style="list-style-type: none"> <li>Once a year</li> <li>Once a year</li> <li>Four times a year</li> <li>Six times a year</li> <li>Four times a year</li> <li>Periodic</li> </ul>	Pollution, Chemical and pesticide usage, environmental care, commensurate remuneration, employee social and welfare care, equal rights, safe and sustainable agricultural practices, health and safety at work, employment opportunities for locals, CSR and sustainable programs	Improved understanding of company policies and efforts taken to date, Inclusiveness in the management decision making	1 2 3 4 5 6 7 8 9 10 11 12 19	63 64 67 72 81 83 86 102 110 121 123 124 153

\* Please refer to Summary of Materiality Matters (22 Key Sustainability Issues) on page 55.



Stakeholder Group	Specific stakeholders addressed	Type of engagement	Frequency	Areas of interest	Outcomes	Addressed by specific Material Sustainability Matters *	Page Reference
Small holders & Local communities	Small holders surrounding and near our operations in Malaysia and Indonesia	<ul style="list-style-type: none"> <li>Annual Small holders' Field Day and Town-Hall style meetings,</li> <li>One-to-one communications</li> </ul>	<ul style="list-style-type: none"> <li>At least once a year</li> <li>Periodic</li> </ul>	Sharing of sustainable agricultural practices and advice and training in best agronomic practices and solutions, social activities which benefits small holders and local communities, Solving common grievances, Free Prior Informed Consent, Pollution, waste management, communication and cooperation, and job opportunities for the locals	An opportunity to sustainably enhance the agricultural practices of small holders, amicable solution to grievances, better social relations with UP Group.	5	81
						6	83
						7	86
						8	102
						9	110
						10	121
						11	123
						12	124
						13	132
						14	136
15	139						
19	153						
20	155						
Government Agencies	DOSH, Labour Department, Indonesian local government, Indian High Commission	<ul style="list-style-type: none"> <li>Engagement Survey</li> <li>One-to-one meetings</li> </ul>	<ul style="list-style-type: none"> <li>Periodic</li> <li>As and when necessary</li> </ul>	Waste management, environmental protection, sustainable agricultural practices, job opportunities for local community, human and workers' and community rights and welfare, compliance to rules and regulations, land dispute resolution	An opportunity to share the Group's commitment, and policies and procedures to sustainable operations	3	67
						4	72
						6	83
						8	102
						9	110
						10	121
						11	123
						12	124
						13	132
						14	136
15	139						
Non-governmental organisations	SUHAKAM, TENAGANITA	<ul style="list-style-type: none"> <li>One-on-one meetings</li> <li>Engagement surveys</li> <li>Direct correspondences via email and telephone conversations</li> </ul>	<ul style="list-style-type: none"> <li>As and when necessary</li> <li>Once a year</li> <li>As and when necessary</li> </ul>	Climate change, pollution, protecting rights of indigenous people, human and workers' rights, product supply chain, being a transparent and caring employer	Better understanding of NGO's concerns and raised awareness of UP Group's sustainability commitments by NGOs	3	67
						4	72
						9	110
						13	132
						15	139
Suppliers	Suppliers of various inputs within the Group	<ul style="list-style-type: none"> <li>Engagement survey</li> <li>One-to-one meetings</li> </ul>	<ul style="list-style-type: none"> <li>Once a year</li> <li>Periodic</li> </ul>	Discharge and waste management, sustainable development, pollution, Impact to human health, climate change, biodiversity and conservation, prompt payment, cost effective solutions, customer relations, ethical business practices	Raised awareness of UP Group's sustainability commitments, better understanding of UP Group's business	1	63
						6	83
						7	86
						8	102
						9	110
						10	121
						11	123
						12	124
						19	153
						20	155

\* Please refer to Summary of Materiality Matters (22 Key Sustainability Issues) on page 55.



Loaded FFB cages ready for sterilization.

## Materiality

(GRI 102-15, GRI 102-46, GRI 102-47, GRI 103-1, GRI 103-2, GRI 103-3)

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 above mentioned 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 2017.

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.

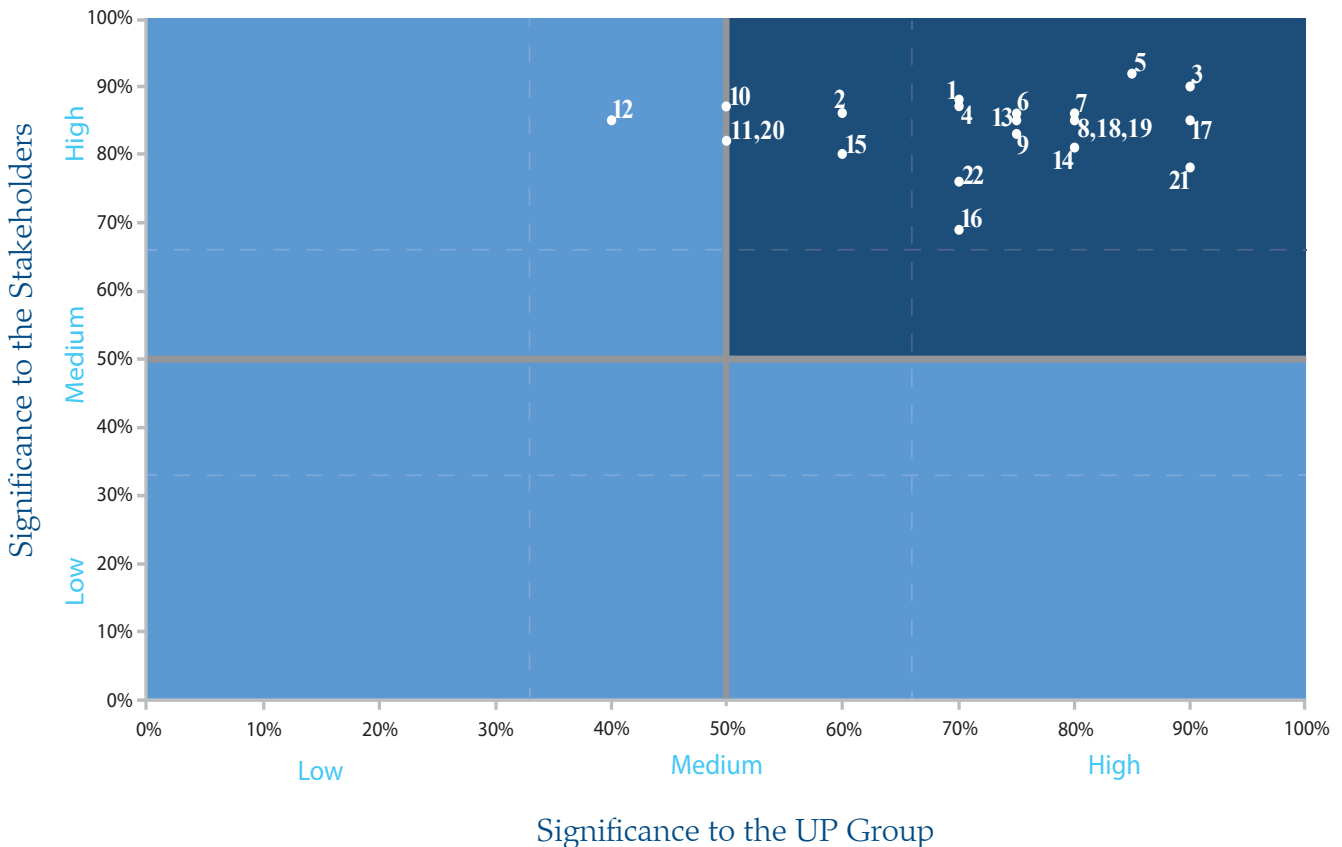


*Group Sustainability Committee (GSC) Meeting chaired by Dato' Carl Bek-Nielsen.*

Summary of Materiality Matters

22 Key Sustainability Issues	Stakeholder Groups
<ol style="list-style-type: none"> <li>1. Code of Ethics and Governance</li> <li>2. Equal Treatment</li> <li>3. Human and Workers' Rights</li> <li>4. Social Care and Workers' Welfare</li> <li>5. Occupational Safety &amp; Health</li> <li>6. Fire and Haze</li> <li>7. Biodiversity and Conservation</li> <li>8. Deforestation/High Carbon Stock</li> <li>9. GHG Emissions, Discharges and Waste Management</li> <li>10. Water Impacts</li> <li>11. Peat Development</li> <li>12. Pesticides and Chemical Usage</li> <li>13. Community Welfare</li> <li>14. Free, Prior and Informed Consent</li> <li>15. Grievance Resolution</li> <li>16. Plasma Development (for Indonesia)</li> <li>17. Product Quality</li> <li>18. Certifications for Food Safety, Sustainability and Others</li> <li>19. Sustainability and Traceable Supply Chains</li> <li>20. Evaluation of Suppliers/Contractors' Sustainability Commitment</li> <li>21. Commodity Prices</li> <li>22. Currency Fluctuation</li> </ol>	<ul style="list-style-type: none"> <li>- Shareholders</li> <li>- Employees</li> <li>- Customers/Consumers</li> <li>- Local Communities /Smallholders</li> <li>- Government Agencies / Regulators</li> <li>- Non-Governmental Organisations (NGO)</li> <li>- Palm Oil Industry Group</li> <li>- Suppliers/Contractors</li> </ul>

Materiality Matrix





## UP and the Roundtable on Sustainable Palm Oil (RSPO)

The RSPO is a global, multi-stakeholder initiative formed in 2004 as a response to world's growing demand for sustainably produced palm oil.

The RSPO is a not-for-profit association that unites stakeholders from seven sectors of the palm oil industry: oil palm producers, processors or traders, consumer goods manufacturers, retailers, bank/investors, environmental and social non-governmental organisations (NGOs). The shared objective of these stakeholders is to develop and implement global standards for sustainable palm oil.

### Global RSPO Members and Governance

The RSPO has 3,659 members worldwide who represent all stakeholders along the palm oil supply chain. The primary objectives of the RSPO is to promote a credible standard of sustainable palm oil production. All Members have committed to produce, source and/or use sustainable palm oil certified by the RSPO, in order to transform markets in order to make sustainable palm oil the norm.

The RSPO is managed by a member- elected board of governors comprising 16 members, designated by the General Assembly for a period of two years.

The RSPO Secretariat is based in Kuala Lumpur, Malaysia. The Secretariat is supported by the RSPO Indonesia Liaison Office (RILO), based in Jakarta.

### Roundtable

"A round table is one which has no 'head' and no 'sides', and therefore no one person sitting at it is given a privileged position and all are treated as equals. The idea stems from the Arthurian legend about the Knights of the Round Table in Camelot." (Wikipedia)

### Sustainable

"Capable of meeting the needs of the present without compromising the ability of future generations to meet their own needs." (The Brundtland Commission's definition).

### The RSPO's Principles and Criteria and Certification

The RSPO has defined eight principles and thirty nine criteria and numerous indicators within economic, environmental and social areas, which must be followed and implemented in

order for palm oil producers to become RSPO certified. Only by being RSPO-certified by an independent auditor approved by the RSPO can producers claim that they produce, use and/or sell sustainable palm oil.

The RSPO is not born complete and it is important to understand that continuous efforts to improve and strengthen the Principles & Criteria is an ongoing process. In this connection, new accreditation requirements have been introduced in 2018 which increases the areas that the certification bodies will have to cover. Improving the competencies of the auditors and in general strengthening oversight by both the certification bodies and ASI (Accreditation Services International) are some of RSPO's goals going forwards.

These positive improvements as they are introduced will further minimise the negative impact of palm oil cultivation on the environment and communities in palm oil-producing regions embracing the right spirit of continuous improvement.

### 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 sustainably produced palm oil in accordance to the Swiss supermarket chain, Migros' principles and criteria on sustainable palm oil.

UP's role regarding the RSPO remain one of being active and in this connection, we are proud to state that our Company was one of the initial plantation 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 2007, UP's in-house RSPO business units were formed. The RSPO business units are headed by the heads of the respective business units and overseen by the Group Manager, Human Resources and Environment, Safety and Health (HRESH). As capacity building, two additional officers joined the HRESH Department in 2017.

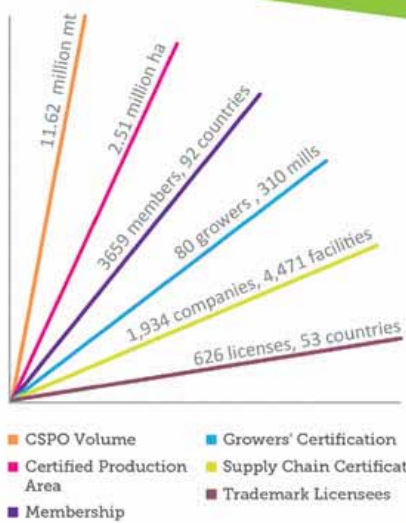


- ## 8 PRINCIPLES
- for growers to be RSPO certified
- 1 Commitment to transparency
  - 2 Compliance with applicable laws and regulations
  - 3 Commitment to long-term economic and financial viability
  - 4 Use of appropriate best practices by growers and millers
  - 5 Environmental responsibility and conservation of natural resources and biodiversity
  - 6 Responsible consideration of employees, and of individuals and communities affected by growers and mills
  - 7 Responsible development of new plantings
  - 8 Commitment to continuous improvement in key areas of activity

Transforming the market to make sustainable palm oil the norm

Source: RSPO website

# RSPO WORLDWIDE IMPACT



**+19%**  
of palm oil globally is certified by the RSPO

Transforming the market to make sustainable palm oil the norm



RSPO worldwide impact

Source: RSPO website

## UP and the World's First RSPO Certificate in 2008

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

## UP's RSPO certified sustainable production volumes

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 our own production was approximately 155,000 MT of palm oil and 37,500 MT of palm kernels in 2017.

All UP's Malaysian estates were certified in 2008, re-certified in 2013 and the third cycle recertification was achieved in 2017. For the new Indonesian Estates, UP had targeted to move towards RSPO and ISPO certification in 2017. This was achieved for part of our HGU area as our subsidiary in Indonesia underwent the RSPO and ISPO initial main assessment on the 11th to the 15th December 2017 and is awaiting issuance of the certificates. The Time Bound Plan for all the areas being certified will be in tandem with the hectareage issued with HGU certificates by the Government of Indonesia. This is expected by 2020. For our Plasma smallholders scheme, full certification is expected by 2020 subject to issuance of individual land certificates by the local government, which is in process.

## UP and RSPO-NEXT Certificate in 2017

As a sign of our continuous commitment towards sustainable palm oil, UP has successfully received the world's second RSPO NEXT Certification and the first for Asia Pacific and Africa in October 2017 for Jendarata and UJE Palm Oil Mills and their respective supply bases. Environmental and social awareness is absolutely essential and UP will continue to support and promote the essentials of sustainable development through the RSPO. For 2018, we anticipate to have approximately 65,000 MT RSPO NEXT certificate of one MT each available for sale.

For more info on RSPO and RSPO NEXT please see [www.rspo.org](http://www.rspo.org).

## UP's involvement in the RSPO today

Today our CED, Dato' Carl Bek-Nielsen is the Co-Chairman of the RSPO Board of Governors representing the Malaysian Palm Oil Association's seat and thereby actively participating in and following important developments within the RSPO.

## Global Palm Oil Production

In 2017 Global production of palm oil reached approximately 67.79 million MT and today it is the most used vegetable oil in the world, contributing to more than 31% of the global production of oils & fats. Palm oil is versatile and has numerous users. It is found in food products, soaps, detergents, cosmetics, plastics and over the last number of years also in biofuel production.



*The PT SSS Team celebrating at the conclusion of the RSPO and ISPO audits during December 2017.*

Key policies of RSPO NEXT:

**NO DEFORESTATION**

- Public no deforestation policy
- Start new plantations on low carbon stock areas only
- Set aside areas for conservation

**REDUCTION OF GHG**

- Monitor and reduce emissions across entire organisation
- Publicly report on progress

**TRACEABILITY OF ALL FRESH FRUIT BUNCHES TO MILL**

Including fruit bunches from associated and independent smallholders, dealers and other sources

**RESPECT FOR HUMAN RIGHTS**

- Paraquat is banned
- Capacity building for smallholders
- Decent Living Wage for plantation workers

**NO FIRE**

Expanded responsibility for fire prevention in and around plantations

**NO PLANTING ON PEAT**

Of any depth after 16 November 2015

**RSPO NEXT**  
A SET OF ADVANCED ADD-ON CRITERIA FOR RSPO PALM OIL PRODUCERS

**RSPO** Roundtable on Sustainable Palm Oil

Eligibility to participate in RSPO NEXT :

**ARE YOU A...**

**RSPO GROWER MEMBER**  
Are 60% of your mills and their supply base already P&C certified?

**RSPO SUPPLY CHAIN MEMBER**  
Do you already buy 100% CSPO (Mass Balance, Segregated, Identity Preserved, Book&Claim Certificates)?

**NOT RSPO MEMBER**  
Become RSPO member

**Flowchart Logic:**

- RSPO GROWER MEMBER:**
  - Yes: Do 30% of your mills and their supply base meet RSPO NEXT requirements?
    - Yes: Congratulations! You can now claim that you produce RSPO NEXT palm oil.
    - No: Sorry, you can't make a claim yet. Make sure that 30% of your mills and their supply base meet RSPO NEXT requirements to participate.
  - No: Sorry, you are not eligible yet. Continue P&C certification to become eligible.
- RSPO SUPPLY CHAIN MEMBER:**
  - Yes: Are you purchasing RSPO NEXT Credits equal to at least 20% of your CSPO/PK volume\* AND have a program of measuring, reduction and reporting on GHG?
    - Yes: Congratulations! You can claim that you participate in RSPO NEXT.
    - No: Sorry, you can't make a claim yet, but keep buying the credits and soon you will be able to participate in RSPO NEXT.
  - No: Sorry, you are not eligible yet. Continue working towards 100% CSPO purchases to become eligible.

**How to participate in RSPO NEXT**

\*Or 150.00 MT whichever is lesser



### 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 is only around 50% of the supply, 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 growers worldwide.

With the European reform on labelling introduced in December 2014 as well as significantly increased commitments from International Brand manufacturers to switch to Sustainable Palm Oil, mainly due to consumer demand and NGO pressure, it is anticipated that demand will start picking up going forward. This is viewed as important to ensure continuous support and commitment to the RSPO by sceptical producers including smallholders that would want a carrot to follow the strict principles and criteria of the RSPO.

With the principle of commensurate effort in mind, all stakeholders of the RSPO must therefore do their utmost to promote not only the production of RSPO certified palm oil, but also the offtake. This has been lacking for too long.

### 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. Being mandatory, producers in Indonesia will have to comply with the ISPO criteria and cannot hide behind the voluntary RSPO scheme as members only.

The ISPO standard includes legal, economic, environmental and social requirements, which largely are based on existing national regulations.

The ISPO main audit for our Indonesian Plantations has been conducted in 2017 for a part of our HGU area.

### 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. First launched in November 2013, it officially came into implementation in January 2015.

Minister of Plantation Industries and Commodities Malaysia, Datuk Seri Mah Siew Keong had announced all plantations with RSPO certification shall comply with MSPO standard by 31st December 2018. "The move to make the compliance mandatory is not to penalize the stakeholders, instead it is aimed at upgrading the whole industry, he said, adding that the mandatory compliance was also a significant step towards branding local palm oil as sustainably produced and safe."

The MSPO main audit for our Malaysian Plantations will commence in the middle of 2018.



Mr. Edward Daniels, President Director, PT SSS inspecting a productive palm on Runtu Estate.



*Beautiful scenic reflection of the setting sun at our Jendarata water reservoir.*



*Diligent female worker, Ibu Rosmiati gathering loose fruits in Lada Estate, Central Kalimantan.*

## Employees

(GRI 102-15, GRI 103-2, GRI 203-1, GRI 205-2)

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. Without our employees which are the Group's core assets, the success and stability of UP would not materialise.

### 1. Code of Ethics & Governance

Our commitment to adhere to ethical, honest and transparent business practices and governance.

#### Code of Conduct & Business Ethics

A key element in UP's sustainability framework is our Code of Conduct and Business Ethics. We implement responsible and ethical business policies and practices in all aspects of our operations.

#### Standard of Conduct

We conduct our operations with honesty, integrity and openness, and with respect for the human rights and interests of our employees. We shall similarly respect the legitimate interests of those with whom we have relationships.

#### Obeying the Law

Directors and employees of our Group are required to comply with the laws and regulations of the countries in which we operate. UP will promote and defend our legitimate business interests. UP will co-operate with governments and other organizations, both directly and through bodies such as trade associations, in the development of proposed legislation and other regulations which may affect our legitimate business interests.

#### Consumers

UP is committed to providing quality products and services which consistently offer value in terms of price and which are safe for their intended use. Products will be accurately and properly labelled, advertised and communicated.

#### Shareholders

UP will conduct its operations in accordance with internationally accepted ethics of good corporate governance. We will provide timely, regular and reliable information on our activities, structure, financial situation and performance to all shareholders.

#### Business Partners

UP is committed to establishing mutually beneficial relations with our suppliers, customers and business partners. In our business dealings, we expect our business partners to adhere to business ethics consistent with our own.

#### Community Involvement

UP strives to be a trusted corporate citizen and as an integral part of society, to fulfil its responsibilities to the societies and communities in which we operate.

#### The Environment

UP is committed to making continuous improvements in the management of our environmental impact and to the longer-term goal of developing a sustainable business.

#### Competition

UP believes in vigorous yet fair competition and supports the development of appropriate competition laws. UP and its employees will conduct their operations in accordance with the principles of fair competition and all applicable regulations.

#### Business Integrity and Corruption

UP does not give or receive whether directly or indirectly bribes or other improper advantages for business or financial gain. Similarly such unhealthy practices by its employees are not tolerated. We commit to the principles of Free, Prior and Informed Consent and adhere to these principles in all our negotiations and interactions with stakeholders.

#### Conflicts of Interests

All UP directors are requested to make written declaration and employees are expected to avoid personal activities and financial interests which would be in conflict with their responsibilities to the Group. UP directors and employees must not seek gain for themselves or others through misuse of their positions.

#### Personal Data Protection

(GRI 418-1)

United Plantations Berhad has a Personal Data Protection Policy to regulate the collection, processing and usage of personal data in the ordinary course of its business. This is to ensure that personal information whether such information is collected on paper, stored in a computer data base system or recorded on other materials are dealt with appropriately, and adequate security measures are accorded to such personal information under the provisions of the Personal Data Protection Act 2010.

**Whistle Blower Policy**

(GRI 102-16, GRI 102-17)

We are committed to high standards of ethical, moral and legal business conduct. This policy aims to provide an avenue for employees, suppliers and other stakeholders to raise concerns and reassurance that they will be protected from reprisals or victimization for whistle blowing. This policy is intended to cover protection for the whistle blower when raising concerns regarding United Plantations Berhad, such as concerns regarding:

- Incorrect financial reporting;
- Unlawful activity;
- Activities that are not in line with United Plantations Berhad policy, including the Code of Business Conduct; and
- Activities, which otherwise amount to serious improper conduct.

Safeguards

Harassment or Victimization – For reporting concerns under this policy will not be tolerated.

Confidentiality – Every effort will be made to treat the complainant’s identity with confidentiality.

Anonymous Allegations – This policy encourages employees, suppliers and other stakeholders to put their names to allegations because appropriate follow-up questions and investigation may not be possible unless the source of the information is identified. Concerns expressed anonymously will be explored appropriately, but consideration will be given to:

- The seriousness of the issue raised;
- The credibility of the concern; and
- The likelihood of confirming the allegation from attributable sources.

Bad Faith Allegations – Allegations in bad faith may result in disciplinary action.

All UP personnel and business partners are encouraged and have the responsibility to report any known or suspected incidences of improper conduct by reporting verbally or making a protected disclosure to any member of the Executive Committee or to the Company Secretary.

The Executive Directors and the Company Secretary, who reside on the plantation, practice an “open door policy” which has been of great benefit towards encouraging whistle blowing for generations.

**2. Equal Treatment (GRI 405-1, GRI 405-2)**

Our commitment to maintaining a workplace free from harassment of any kind, including harassment based on an employee’s race, colour, religion, gender, national origin, ancestry, disability, marital status and sexual orientation

It is our obligation to honour and respect past and present employees who since 1906 have upheld our core values and focused on doing things right. Our employees are our core assets and human capital management is considered an integral and vital part of our operations.

Total number of incidents of discrimination and corrective actions taken for 2017 (GRI 406-1)

Total number of incidents of discrimination	Nil
Corrective actions taken	Nil

**Gender Policy**

In line with this gender policy, we shall:

- Endeavour to prevent sexual harassment and all other forms of violence against women and workers in the workplace or in the course of an employee’s work.
- Adopt a specific complaints and grievance procedure and mechanism to address gender-based issues.
- Encourage effective participation of women in decision-making by their representation as members of various committees, such as the Occupational Safety And Health Committee.
- Establish a Gender Committee to implement and monitor this policy.
- Communicate to our employees, contractors and suppliers to adhere to values of this policy.

**Gender Committee**

Our Gender Policy is designed to protect our female employees. We have established Gender Committees which includes representatives from labour unions and management to promote female participation and advancement in the workplace, handle sexual harassment complaints and provide support for victims.

When a harassment case is reported, informally or formally, the relevant committee investigates the case to determine if further sanctions are needed or if law enforcement action needs to be taken.

UP promotes diversity in a working environment where there is mutual trust and respect and where everyone feels responsible for the performance and reputation of our group.

We will recruit, employ and promote employees on the sole basis of the qualifications and abilities needed for the work to be performed. Meritocracy is a Hallmark of our Group.

We are committed to diversity and have an equal employment opportunity policy. Below is the summary of our Group's employees as well as gender mix.

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

While male workers perform tasks including harvesting fresh fruit bunches, crop collection and evacuation to the railway cages for transport to the mills, women are assigned work including weeding, gardening and loose fruits collection.

We provide crèches, playgroup classes and kindergarten at all operating sites to support our female employees and their children.

	UP Indonesia (PTSS)	UP Malaysia	UP Group
Percentage Female Employees	28.64%	9.87%	19.26%
Percentage Male Employees	71.36%	90.13%	80.74%

### UP Group

#### Employees – Year 2013 to Current (GRI 102-8, GRI 202-2, GRI 401-1)

	2017	2016	2015	2014	2013
UP Bhd	5,223	4,482	5,216	5,563	5,297
Unitata Bhd	242	213	216	227	255
Butterworth Bulking Installation Sdn. Bhd.	15	16	16	15	18
PT SSS1, Indonesia	1,345	1,215	1,180	1,481	802
PT SSS2, Indonesia	-	-	-	-	108
<b>Total</b>	<b>6,825</b>	<b>5,926</b>	<b>6,628</b>	<b>7,286</b>	<b>6,480</b>

#### Category of Employees (Malaysian) as at 31 December 2017

Employee Classification	Gender Classification		Age Classification			Ethnic Classification				Total
	Male	Female	18-30	31-50	>50	Malay	Chinese	Indian	Others	
Directors	2	-	-	-	2	-	2	-	-	2
Management	106	19	26	62	37	21	23	81	-	125
Staff	189	127	80	143	93	93	7	209	7	316
Workers	560	371	182	409	340	239	2	685	5	931
<b>Total</b>	<b>857</b>	<b>517</b>	<b>288</b>	<b>616</b>	<b>472</b>	<b>353</b>	<b>34</b>	<b>975</b>	<b>12</b>	<b>1,374</b>

#### Category of Employees (Other Nationalities) as at 31 December 2017

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	12	2	2	7	5	1*	13	-	-	-	14
Staff	47	15	21	40	1	-	-	-	-	-	62
Workers - PTSS	907	364	405	814	52	-	1,271	-	-	-	1,271
Guest Workers - Malaysia	3,976	126	1,723	2,347	32	5	1,137	38	642	2,280	4,102
<b>Total</b>	<b>4,944</b>	<b>507</b>	<b>2,151</b>	<b>3,210</b>	<b>90</b>	<b>8</b>	<b>2,421</b>	<b>38</b>	<b>642</b>	<b>2,280</b>	<b>5,451</b>

\* Danish & British

**Grand Total = 6,825**

Grievance Redressal Procedure For Sexual Harassment In The Workplace

The chairperson notified that the line of command in which action is to be taken in accordance to UPB’s sexual harassment & violence policy will be as follow:



A formal complaint form to be prepared by the Secretary which will then be translated into Bahasa Malaysia and Bahasa Tamil. This complaint form will be distributed to the respective representatives of the committees at the next meeting which, in turn, must be distributed to the sub-committee members.

A worker who has a grievance, sexual or violent in nature, should obtain the form from one of the sub-committee members and either complete it herself or request the assistance of the sub-committee member to fill it up.

The complaint form is to be submitted to the respective Head of Department and copied to the Gender Committee. Appropriate action should be initiated by the Head of Department.

The committee decide that if the issue is not resolved in 2 weeks from the date of complaint or if the victim is unhappy with the way the issue is dealt with at the department level, the Gender Committee will bring this case up to the Group Manager Human Resources, Environment and Safety & Health.



Mr. Dharmapalan’s family

The Group Manager Human Resources, Environment and Safety & Health has been given the mandate by the Chief Executive Director to address all unresolved issues pertaining to sexual harassment and violence.

Total incidents of sexual harassment reported and corrective actions taken for 2017 (GRI 412-3)

Total incidents of sexual harassment reported	Nil
Corrective actions taken	Nil

Working at United Plantations - a Family Affair

In today’s world, it is rare to see several generations of a family working for the same Company. In UP, we promote and are proud to have parents, spouses, children/grandchildren and siblings from the same family serving the Company at various levels as this is a testimony of family-friendly workplace.

One of them is the Dharmapalan family. Mr Dharmapalan joined as a Hospital Assistant in 1980 (retired in 2014 and resumed in 2016) and his wife Mrs. Latha Devi worked as a kindergarten teacher since 1990 and retired in 2014. They take pride to see their son, Mr. Jeevan Dharmapalan who joined the Company in 2005 and currently is the Manager of HRESH. Mr. Jeevan’s spouse is also employed in the Accounts Department since 2013. Mr. Dharmapalan says “To see my son and his spouse work at the same Company with me, it gives me the same kind of pride and joy I have in my family.”

Another example is the Mr. Muserlaya family. Mr Muserlaya, our tractor driver since 1980, also takes pride to have his wife Mdm Vinmala Perumal and all his three children Ms. Saraswathy, Ms. Pennarasi and Mr. Moogan Rao are currently employed in United Plantations Berhad.



Mr. Muserlaya’s family

### 3. Human and Workers' Rights

Human resource practices which respects universal human rights, including prohibiting the use of child or forced labour in our operations

#### UN Guiding Principles On Business And Human Rights

On 16 June 2011, the United Nations Human Rights Council endorsed the Guiding Principles on Business and Human Rights. In this context, UP have in place the following policies:

- Human Rights Policy
- Guest Workers' Policy

As per our continuous improvement efforts, we are focusing on retraining (reach, teach and remind) all our employees, customers, contractors, suppliers and communities on the core values which we are fully committed to.



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 indicates our commitment to being a leader in economic, environmental and social sustainability.

#### Human Rights Policy

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

- We conduct our business in a manner that respects the rights and dignity of people and local communities, complying with all legal requirements.
- We ensure all personnel are treated fairly and protected from any form of discrimination that would constitute a violation of their human rights.

- We ensure equal opportunities provided to all personnel. The process of recruitment, promotion and remuneration are solely based on individual qualification and performance regardless of religion, race, age, gender, nationality or physical disability.
- We respect the rights of all personnel to form, join and participate in registered trade unions and to bargain collectively.
- We respect the rights of people in communities impacted by our activities. We will seek to identify adverse social and environmental impacts through their respective assessments and take appropriate steps to avoid, minimize and/or mitigate them.
- We respect land tenure rights as well as recognize duties and responsibilities associated with tenure rights.
- We respect customary or native rights of indigenous and local communities and we commit to Free, Prior and Informed Consent (FPIC) in all negotiations prior to commencing any new operations.
- We resolve all complaints and grievances through an open, transparent and consultative process.
- We will not tolerate the use of child or forced labour, slavery or human trafficking in any of our plantations and facilities. We are using the definition from United Nations Convention on the Rights of the Child which define 'child' as anyone who is less than 18 years old.
- We will strive to commit our employees, contractors, suppliers, trading partners and stakeholders to adhere to this policy.



Commitment to No Child Labour.



## Guest Workers' Policy

We consider our foreign workers as guest and they are partners in our business along with our local workers

- No form of forced labour or trafficked labour are used.
- No difference is made between foreign and local workers.
- All guest workers are in possession of a valid work permit in accordance with Malaysian Immigration Regulations, 1963.
- All guest and local workers are covered under the purview of "Workers Minimum Standards Of Housing And Amenities Act 1990".
- No contract substitution.
- Passports of guest workers shall be placed in our Guest Worker passport lockers voluntarily or submitted to the respective management voluntarily for safe custody and will be readily made available upon request.
- We will ensure that our contractors employ guest workers with valid work permits and all statutory payments and just wages are made timely.
- We will endeavour to make "The Home Away From Home" of our guest workers enriching with good memories.

## Guest Workers' Committees

Our guest workers are indispensable partners in our business and constitute approximately 85% of our total workforce in Malaysia. Each estate and department has a formal guest workers' committee comprising representatives of various nationalities, contractors, staff and management which meets monthly.

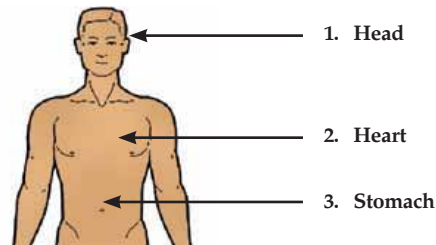
It is a collaborative platform to address all issues pertaining to guest workers, induction course, "Home Away From Home", festival celebrations, safety, health and recreation.

## Intercultural Management

It is inevitable that plantation staffs have to manage guest workers from Indonesia, Bangladesh, Nepal, Myanmar, India and perhaps later from some other countries.

Managing these guest workers of different cultures, background and upbringing is complex. However, it is important to realise that in order to effectively manage the guest workers of diverse backgrounds, there are 3 things to care about:

1. Head
2. Heart
3. Stomach



Head means their dignity. Don't say bad of their countries or cultures. They may be different from ours. (uphold humility)

Heart means their feelings. Respect them. Use the right words. Do not look down on them. Don't use foot to turn their harvested bunches. (uphold dignity of labour)

Stomach means, their food and income. Pay them their dues on time and facilitate them to earn more. (uphold just wages)

The management uses the above concept as the backbone of managing human resources of the diverse background.

## Guest Workers' Passport Lockers

We have constructed a room containing passports lockers within the plantation to enable our guest workers free access to their passports without any restrictions at Jendarata Estate. Since its construction and evaluation, the Company has decided to replicate in other estates in stages. Currently in other estates, passports of guest workers are voluntarily submitted with a written consent from the guest workers to the respective management for safe custody in the estates' safe and is readily made available upon request.



Guest workers gaining free access to their travel documents.

Repatriation and Leave during the year	2017	Total number of guest workers (%)
Total number of guest workers	4,042	100
Repatriation	587	14.52
Gone on leave	537	13.29
Gone on leave and returned	441	10.91
Gone on leave and didn't return	96	2.38

### 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 above. During 2017, 587 of our guest workers have been repatriated upon completion of their employment tenure.

Another 537 guest workers went back on leave to their respective home countries with the majority returning back to resume their employment at UP. Nevertheless, 96 guest workers that had gone on leave did not return.

### 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 and spot checks to identify gaps and potential risks within our operations and develop mitigation plans and provide remedial actions.

Our guest workers are from Indonesia, Bangladesh, India and Nepal which constitute 85 % of our workforce in Malaysia, as such our challenges are to identify and understand human rights impacts on our diversified workforce within our Group. From our assessments, we prioritise our implementation plans and focus on the risks to the vulnerable groups.

We identified that recruitment practices relating to guest workers maybe vulnerable to exploitation at the source country.



Welcoming guest workers upon arrival at the airport.

### Recruitment Practices

We recruit guest workers directly through the appropriate government approved channels as below:

- Indonesians – Indonesian Embassy – FWCMS – KDN
- Indians – E-Migrate System – FWCMS – KDN
- Nepalese – Nepal High Commission – FWCMS – KDN
- Bangladeshis – Bangladesh High Commission – SPPA – FWCMS – KDN

\*FWCMS - Foreign Workers Centralised Management Services by Government of Malaysia

KDN - Kementerian Dalam Negeri / Ministry of Home Affairs of Malaysia

SPPA - Sistem Permohonan Pekerja Asing by Government of Malaysia

E-Migrate System by Government of India

We do not charge any recruitment fees and to reduce the financial burden on our guest workers, we are planning to establish our Company's Information Centre at the source country of our guest workers.

This centre will act as a bridge between the workers from the villages to the main accredited recruiting agents in order to disseminate the job scope at the plantations and conduct pre-departure briefings. It will also minimize the risks of sub-recruitment agents being involved and thereby adding financial burden on the guest workers.

### Guest Workers' Verification by HRESH Department

The HRESH 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.

	2017	2016	2015	2014	2013
Total Average Earnings per worker per month - UP Group Plantations (Malaysia)	RM 1,592	RM 1,472	RM 1,308	RM 1,147	RM 1,156
Total Average Earnings per worker per month - UP Group (Indonesia) - Permanent Workers	IDR 3,391,159	IDR 2,567,777	IDR 2,883,552	IDR 2,817,097	IDR 1,996,124
Total Average Earnings per worker per month - UP Group (Indonesia) - Temporary Workers	IDR 2,409,208	IDR 2,566,166	IDR 2,566,108	IDR 1,749,865	IDR 1,610,007

**Paying fair wages and employee benefits**  
(GRI 202-1, GRI 405-2)

All employees of UP in Malaysia receive at least the minimum wage set by the Malaysian Government (Wage Order 2016) of RM1,000 per month. The average earnings of our workers supersede the minimum wages by more than 50% as reflected in the above table.

For our plantations in Indonesia there is a fixed minimum wage and this is revised annually by each provincial government. The company follows the minimum wage agreements and all new guidelines or revisions to the existing agreements are communicated to employees.

Payment records are countersigned by the workers to acknowledge receipt and they understand how payments are calculated. In addition, the company also gives an annual bonus to celebrate the holidays depending on their religion, called Tunjangan Hari Raya (THR).

With the report published by Amnesty International, on 30 November 2016, targeting various plantation companies in relation to human rights violation within the plantation sector, it calls for diligent compliance with all relevant laws in this area.

In this connection, we are increasing awareness by retraining and conducting audits within all operational areas of our group.

The results of these measures will be monitored and incorporated in our efforts for continuous improvements, and highlighted in our future reports. The traditional practice of wives assisting their husbands in harvesting have ceased by employing them into the estates' permanent workforce. Seasonal temporary workers are offered employment with appropriate insurance coverage and medical facilities.

**Benefit Provided to Seasonal Temporary Workers**  
(GRI 401-2)

Seasonal temporary workers are offered employment with appropriate insurance coverage and medical facilities.

**Banking facilities**

UP with the collaboration of Bank Simpanan Nasional has initiated the Automated Teller Machine (ATM) services at Ulu Bernam and UIE Estates, which provides workers with personal banking services in a swift, convenient and secure manner. Western Union visits selected estates to provide remittance services for the convenience of our guest workers.



ATM Banking facility provided within the premises.

UP Group (Malaysia)	2017	2016	2015	2014	2013
% of workers as members of All Malayan Estates Staff Union (AMESU)	76	-	-	-	-
% of workers as members of National Union of Plantations Workers (NUPW)	14	23	24	22	24
% of workers as members of Food Industry Employees' Union	57	-	-	-	-
UP Group (Indonesia)	2017	2016	2015	2014	2013
% of workers as members of Union*	5	100	0	0	58

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

### Freedom to form a Union

(GRI 102-41, GRI 403-1)

Employees and workers have the rights to form and become members of labour unions. Through unions, workers have the right to carry out collective bargaining as permitted under Malaysia and Indonesia laws.

The Company also engages with the Food Industry Employees Union for refinery workers. The collective agreements are renewed every three (3) years where either party may serve on the other three (3) months' written notice to negotiate on new terms and conditions of employment and other related matters but no such notice shall be served earlier.

### Minimum Notice Periods Regarding Operational Changes

(GRI 402-1 )

United Plantations Berhad is a member of MAPA (Malayan Agriculture Producers Association) which has collective agreements with NUPW (National Union of Plantation Workers) and the All Malayan Estates Staff Union (AMESU).

The timely and meaningful collective bargaining allows the affected parties to understand the impacts of the changes. It also gives an opportunity for both parties to work collectively to avoid or mitigate negative impacts as much as possible. Consultative practices that result in good industrial relations help to provide positive working environments, reduce turnovers and minimize operational disruptions.



*The sunset casts a kaleidoscope of colours across the landscaped palms in Lada Estate.*

#### 4. Social Care and Workers' Welfare

Our commitment towards providing quality housing and social amenities and to maintain the highest possible welfare standards for the families of our workforce

##### Social Commitments

Providing and improving social amenities remains very much a hallmark within our Group. Continuous improvements were made during 2017 to maintain the highest possible welfare standards for our workforce.

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 and 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 well being of its employees.

In addition, 66 scholarships were granted to children of our employees during 2017 thereby enabling these students to pursue their studies.

##### Social Amenities

The Community Halls on our estates continue to be put to good use providing our employees with vastly improved facilities for special functions such as weddings, engagements and other religious ceremonies. Several new staff quarters and modern employees' houses were built during 2017 in line with the Company's goal to provide its employees with the best housing facilities within the plantation industry.

Upgrading of our guest workers living quarters which our Company embarked on in 2010 has progressed well with the first two apartment blocks completed in 2011. These have provided the finest living facilities in our industry with a living area of 220m<sup>2</sup> per unit encompassing 3 bedrooms, 1 kitchen, 2 bathrooms and a large hall and patio. More than 27 additional terrace apartment blocks have been built providing first class housing facilities for more than 240 employees during 2017.



*A well landscaped modern housing facility at Lada Estate, Central Kalimantan.*



*The HRESH Team headed by Mr. C. Mathews, who is the Group Manager HRESH.*

**Human Resources And Environment, Safety & Health (HRESH) Department**

The HRESH Department is responsible for formulating and developing policies and procedures which are aligned with objectives and core values of the Group in respect to managing people, workplace culture and the environment.

The key HR functions include recruitment, selection, training, succession planning, welfare and safety. Besides managing HR, the Department is responsible for driving

the sustainability agenda of the Group, which includes ensuring that the Group conducts its business in a responsible manner that adheres to global standards and meets stakeholders’ expectations. The team also engages in strategic partnerships to strengthen the sustainability practices of the Group.

As capacity building the Department had engaged two new officers and moved into a new office at the Jendarata Group Hospital Complex on 30th October 2017 to facilitate its crucial role in the Group.



*Welcoming the EXCOM by the HRESH team.*



*The interior of the general office.*



*Annual intercompany badminton tournaments are held at our various estates to foster the esprit de'corps among employees.*

**Sporting Activities**

We encourage our employees to participate in sporting and social activities by providing facilities such as football fields, community halls, badminton courts, tennis courts and futsal court etc.

During the year several intercompany badminton and football tournaments were

arranged providing fun and team work outside office hours. In addition, annual sports days are held at selected estates to enhance friendship and community spirit through sports.

During 2017 the UP Football Team, Jendarata FC managed to win the Teluk Intan League after a number of tough matches to the delight of supporting fans and players.



*Jendarata FC after their splendid win of the Teluk Intan League.*



*Vigorous fitness training programmes for our security personnel at PTSSS.*



*Indonesian National Day celebration in Runtu Estate.*



*2017 Merdeka celebration.*



*Visiting Bakery Adviser, Mr. Vagn Nielsen together with our local bakery team proudly shows his newly introduced recipes.*

### Bernam Bakery

Bernam Bakery located on Jendarata Estate UP, 160km north of Kuala Lumpur, renowned for its Danish pastries and hand-made cookies, was the brainchild of our late Tan Sri Dato' Seri B. Bek-Nielsen.

It was established in 1982, purely out of necessity, to teach the local employees how to make good wholesome bread, for the local community, who found the quality of bread they bought from various dealers to be inferior, thus a scheme was created to enable the employees of the plantation to purchase quality bread.

The bakery, which is equipped with the most modern Danish machinery, was constructed within five months. Tan Sri Dato' Seri B. Bek-Nielsen enlisted the help of his good friend, the late Robert G. Pedersen, a master baker and retired lecturer from Holstebro Bakery School in Denmark, to train our local employees on the traditional art of baking original Danish bread and cookies on a no cost basis.

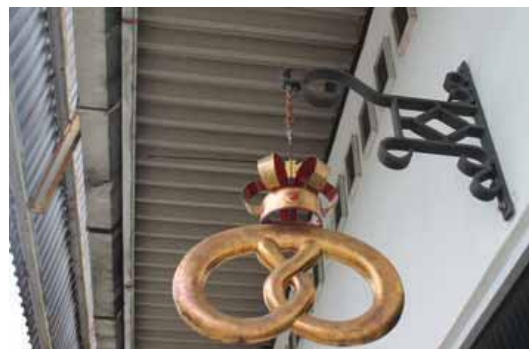
It was amazing to see how the bakers became proficient within 6 months, thus providing our labour force with wholesome and nutritious secret recipes of bread and cookies of excellent quality, using shortenings produced by our refinery, Unitata.

The transfer of Danish Technology in the Baking Industry, took many years of dedicated work under the watchful eyes of the master baker.

The current bakery manager Mr. Jayarama Reddy and his team, do not only cater for the employees and the public but also is a proud supplier of high quality bread, pastries, cakes and biscuits to the many guests who visit United Plantations as well as certain outlets throughout Malaysia.

In January 2018, Mr. Vagn Nielsen, a Master Baker and a retired lecturer from Holstebro Bakery School in Denmark was invited to Bernam Bakery to train and work together with our local bakery team to help ensure that the quality in the final product is assured and found to be consistent.

Mr. Vagn Nielsen is a former student and friend of the late Mr. Robert Pedersen and it is therefore most pleasing that he has agreed to be associated with Bernam Bakery as a visiting Bakery Adviser together with his wife Mrs Else Nielsen going forward.



*Official emblem of a Danish bakery the "Kringel".*



### United Plantations Berhad – Old Folks Home

Our corporate culture is deeply embedded in our traditional values and legacy the Company's founders introduced nearly 112 years ago. The Old Folks Home was officially opened by Minister of Labour, YBhg Tan Sri V. Manikavasagam on 17 March 1967 on Jendarata Estate and is the only one of its kind in this industry. Set in a peaceful environment, it caters for the retired and aged employees who are given free boarding, food and medical care. A full time caregiver is also provided for the Home.

### Annual Benevolent Payments

Annual benevolent payments as well other compassionate and educational payments made by the Group to workers amounted to RM 615,680 during 2017. The payments made through our various Benevolent and Educational Schemes are as follows:

1. UP Workers Benevolent Retirement Scheme (established in 1985)
2. UP Education and Welfare Fund (established in 1986)

3. UIE (M) Education and Welfare Fund (established in 1997)

The objective of the UP Workers Benevolent Retirement Scheme is to provide retirement benefits to workers who are loyal and have served the Group for 10 years and above and in addition to the workers entitlement under their respective collective agreements.

Over the last 5 years, an average of RM230,000 per annum was paid out from this scheme. The objective of the 2 education and welfare funds is to grant scholarships for suitably qualified workers children or dependants, and other benefits such as welfare and medical costs to deserving cases irrespective of race, religion or creed.

The following table summarises the annual benevolent payments made in the last 5 years. During the year, 9 retired workers received retirement gratuity, 66 school children received scholarships, 88 school children received bus subsidies and there were 86 beneficiaries from donations given by the Group.

### Social Commitments of the Group

	2017 RM	2016 RM	2015 RM	2014 RM	2013 RM	Grand Total RM
Hospital & Medicine for Employees, Dependents & Nearby Communities	2,400,609	2,229,584	2,125,483	2,083,013	1,887,592	10,726,282
Retirement Benevolent Fund *	101,866	252,500	188,750	253,250	195,250	991,616
Education, Welfare, Scholarships & Other	298,269	299,824	359,621	319,011	384,514	1,661,240
Bus Subsidy for School Children	215,545	244,916	219,732	209,574	254,608	1,144,375
External Donations	120,008	302,997	186,634	145,301	156,583	911,524
New Infrastructure-Road, TNB and Water-Supply for domestic use	1,132,292	298,461	208,061	910,529	877,124	3,426,467
Employee Housing	11,879,818	5,937,022	4,270,989	11,673,563	6,810,561	40,571,952
Infrastructure Projects, Buildings, Community Halls, Places of Worship	6,773,589	1,502,571	1,265,998	868,542	914,786	11,325,485
Provision of Social Amenities	6,195,586	5,396,162	5,591,197	5,418,484	5,002,048	27,603,477

### Environmental Commitments of the Group

	2017 RM	2016 RM	2015 RM	2014 RM	2013 RM	Grand Total RM
Environment Friendly Operational Activities	5,147,810	6,395,566	10,521,932	10,462,491	10,755,059	43,282,858
Environment Friendly Project (Biogas, Biomass-others)	9,030,692	1,346,254	9,207,905	3,551,035	2,935,999	26,071,885
Biodiversity & Conservation (Forest reserve, Endangered Tree Species Projects, Collaboration with Copenhagen Zoo)	658,062	584,061	607,833	608,393	543,824	3,002,173
<b>Total</b>	<b>43,954,146</b>	<b>24,789,918</b>	<b>34,754,135</b>	<b>36,503,187</b>	<b>30,717,948</b>	<b>170,719,334</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.



*Founded in 1967, the Senior Citizen Home at Division 1, Jendarata Estate caters for the retired and aged employees who are given free boarding, food and medical care.*



*A well- equipped Hospital/Health Care Centre with ambulance service and Medical Hospital Assistants provided for the immediate health needs of workers, staff and officers at Lada Estate, Central Kalimantan.*



*A well-maintained mosque at Ulu Basir Estate frequently used by the surrounding families of Muslim faith.*



*The Petra Andrea Church situated atop Margrethe Hill, Changkat Mentri Estate.*



*The Sri Maha Mariamman Temple at Jendarata Estate is the oldest large temple with its intricate Italian inspired and traditional Indian architecture.*



*A historical site- Sri Maha Visnu temple depicting the statue of a "merman" which was built by the late Mr. Veerapitharon family in 1985, situated adjacent to Jendarata Estate boundary.*

### Training and Development of Employees (GRI 404-1, GRI 404-2, GRI 410-1, GRI 412-2)

In UP our human capital is indispensable and our approach is “Reach, 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 HRESH team and also through external auditors during RSPO/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 others. With 85% of our workforce being guest workers and with a 20% annual turnover it is imperative that on the job trainings and re-trainings are constantly conducted. The scope further widens for certain type of categories, for instance; fire drills are being held periodically as per annual training programmes with the participation of neighbouring communities.

An employee who knows that he needs to wear his Personal Protective Equipment (PPE) during his operation at the site without

being monitored/presence of his superiors is what internalizing the awareness altogether. Nevertheless, the trainings need to be constantly carried out as human nature also tends to take things for granted.

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 programmes, 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.

The training’s effectiveness transpires in the awareness of our employees during un-announced internal audits and performance monitoring.

We are not disclosing training hours this year, as past records captured both formal and informal trainings and the methodology varied within various departments in our Group. Going forward, training hours data will be formatted to record training in a systematic and uniform manner. This will be part of our continuous improvement programmes and training sessions for 2018.



*CPR training programme at Bernam River Ulu Group Hospital (BRUGH) being conducted for employees.*

**5. Occupational Safety and Health**

(GRI 403-4)

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, customers and public

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

**Occupational Safety And Health Policy**

In striving to secure a safe and healthy work environment we shall:

- Devote our continuous efforts to accident prevention, by conducting Hazard Identification, Risk Assessment and Risk Control (HIRARC) on all our operations.
- Provide continuous training and supervision to all categories of employees to build and promote a safe and healthy work environment in full compliance with legislative requirements.
- Equip and train employees to use appropriate protective equipment and to develop a health and safety conscious citizen.
- Ban the use of Paraquat weedicide (1, 1'-Dimethyl-4, 4'-bipyridinium dichloride).
- Commit to reduce and phase-out chemicals that fall under the WHO Class 1A & 1B and Stockholm or Rotterdam Conventions. We will continue working with stakeholders to determine and implement alternative pest control strategies to totally phase-out these chemicals when effective and suitable alternatives are available.



Briefings and inspection on the proper use of Personal Protective Equipment (PPE) are regularly conducted.

- Ensure fire safety plan is implemented and continuously trained for its preparedness within our organization and neighboring communities.
- Develop a culture of individual responsibility and accountability for the employee's own well-being as well as those of the personnel and facilities under their control.
- Strive to commit our employees, contractors, suppliers, trading partners and stakeholders to adhere to this policy as well as Safety and Health regulations and standards.

**Estate Group Hospitals**

The Company operates two well-equipped estate group hospitals in Malaysia and a modern Health Care Centre in Indonesia with trained resident Hospital Assistants supervised by Medical Doctors. Regular inspections of the employees' housing are made by the Health Care Team to ensure that sanitation, health and drainage standards are maintained according to the Company's policies.

**Human Resources and Environment, Safety & Health (HRESH) Department**

The Company's Safety and Health Officers make periodic workplace inspections. Safety Committee meetings are held in accordance with Department of Safety & Health (DOSH) regulations. Safety operating procedures and system checks for all processes and equipment are in place and product quality standards are stringently maintained in a responsible manner.

**Chemical Health Risks Assessment (CHRA)**

CHRA and Medical Surveillance programmes are regularly carried out for all employees engaged in handling pesticide and other chemicals. In this context, training programmes in the use of personal protective equipment for workers exposed to hazardous chemicals are regularly conducted and documented and have been a vital part of our operations for many years. Audiometric tests and fire drills are also conducted on a regular basis.

These are kept up to the mark by the periodic workplace inspections carried out by the Company's Safety and Health Officers.

CHRA renewal are conducted every five years and we are on schedule.

**Hazard Identification, Risk Assessment and Risk Control (HIRARC)**

In recent years, HIRARC has become fundamental to the planning, management and the operation of a business as a basic risk management practice. In line with our approach of preventive measures as a way of providing safe workplaces, we have conducted HIRARC on all our operations.

With HIRARC, we were able to identify hazards, analyse and assess their associated risks and then apply suitable control measures. We are pleased to report further positive changes in our working environment with the introduction of HIRARC.

Every three years or whenever there are changes in the process or activities the HIRARC shall be reviewed. The records shall be maintained for at least three years (in some cases legislative requirement will determine the minimum time to retain records).

**Fatal Accident Rate (FAR)**  
(GRI 403-2)

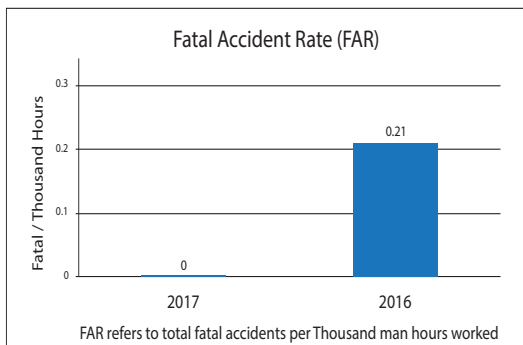
Fatal Accident Rate calculation is as per the below formula (Malaysian OSH Act 1994 JKPP8)

$$\text{Fatality Rate} = \frac{\text{Fatal Accident Rate (FAR)} = \text{No. of fatalities} \times 1000}{\text{Annual average of No. employees}}$$

Our aim is to avoid all incidents that put our employees at risk and to achieve zero fatalities. Every fatality is followed by a thorough review of the cause and action undertaken to eliminate the factors involved.

All reviews have been reinforced with continued efforts in the training and retraining on the use of appropriate protective equipment in order to minimise risks.

Every fatal accident is formally investigated and the Group ensures that the necessary bereavement



arrangements are handled compassionately. Compensation under the Government's 'Foreign Worker Compensation Scheme' or SOCSO will also be provided to the bereaved family. Whilst we unfortunately had experienced a death of an employee in 2016, we are pleased to report that this has not been the case in 2017.

**Lost Time Injury Frequency Rate (LTIFR)**  
(GRI 403-3)

LTIFR refers to the number of lost time injuries occurring in the work place per 1 million man-hours worked. From the table below (year 2017) shows that 9.04 lost time injuries occurred on our jobsite every 1 million man-hours worked.

Lost Time Injury Frequency Rate calculation is as per the below formula (Malaysian OSH Act 1994 JKPP8)

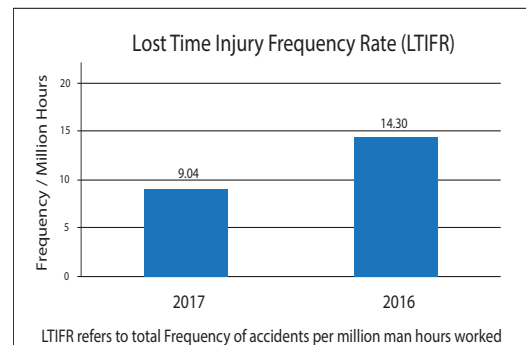
$$\text{Frequency Rate} = \frac{\text{Lost Time Injury Frequency Rates (LTIFR)} = \text{No. of accident} \times 1,000,000}{\text{Total man-hours worked}}$$

During the year, a total of 87 cases were reported for estate operations. 37% of accidents involved harvesting operations (thorn pricks, debris falling into eyes, cutting stalk, fronds falling on body), 10% commuting accidents, 12% handtools related and 41% others (locomotive, workshop, tractor & lorry related, etc). As for Engineering department and Unitata, total of 9 cases were recorded. 33% were locomotive related, 22% workshop & handtools related, and 45% others.

In 2017, we introduced a behavioural safety approach to further enhance the safety culture and pleased to report that LTIFR reduce to 9.04.

**Workers with high incidence or high risk of diseases related to their occupation in 2017**  
(GRI 403-3)

Workers with high incidence of diseases	Workers with high risk of diseases
Nil	Nil



\*Scope covers workers only for the Malaysian operations except for Unitata where all categories of employees are included.

**6. Fire and Haze**

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 emergencies.

In 2014 and 2015, South East Asia experienced some of the worst incidences of haze caused by the widespread forest fire in Indonesia, which were exacerbated by the El Niño weather phenomenon.

The causes of fires vary greatly. The impacts can be catastrophic, including loss of life and loss of primary biodiversity.

We understand that fires present long-term commercial risks and potential costs are high. Wider risks also include threats to national climate change goals, environmental sustainability and poverty reduction.

**Zero Burning Policy**

Our fire prevention is managed through our strict zero burning policy since 1989, as well as through our fire management and monitoring standard operating procedures. These are continuously reviewed to ensure they are effective.

In 2017, we have revised the fire fighting SOP in view of the RSPO-NEXT requirement to plan and prepare facilities to prevent, monitor and combat fire within our land and the neighbouring vicinity of the estates, in coordination with the local communities and Local Fire Fighting Department. We have also registered with the Global Fire Watch under the WRI Global Forest Watch Tool as monitoring aids.

Our Emergency Response Teams (ERTs) are regularly trained in fire prevention and fire fighting in all our plantations.

Trainings are done regularly in-house, as well as in conjunction with the local authority, fire brigades and the Ministry of Forestry. Any fire starting within an outer ring range of 500 m from any of our plantations' borders are immediately reported to the local fire brigade for their action.

A fire within an inner ring range of 100 m is fought by our ERTs. We embrace fire safety in various ways such as promoting anti-smoking, tracking and identifying fire brigade locations and water sources. We have stepped up our fire fighting capacity by conducting more training and fire drills, and by purchasing additional fire fighting equipment.

Having analysed our past incident data in 2017, we have concluded that fires were mainly caused by illegal burning activities carried out by local communities engaged in small-scale farming in areas neighbouring our property.

We will continue 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 we did not experience any drought in Indonesia and the areas burnt were significantly reduced. However we had a small isolated fire of 7.16 Ha which was immediately extinguished by our ERT in PTSSS.

**Hectares Burnt In Fires**

	2017	2016	2015
Non Planted	6.00	30.89	669.94
Planted	1.16	107.14	81.45
Total	7.16	138.03	751.39

**Outer Ring Range of ≤500 m**

	2017	2016	2015
Outer ring ≤500 m (Ha)	Nil	≤ 1 Ha *Small farmer's field	≤ 1 Ha *Village sundry shop



Our Emergency Response team during a training session with the locals community at Kumai Estate, PT SSS.



Estates Emergency Response Team in action during ad-hoc drills.





Many birds species such as the Purple Heron and the Egrets are commonly spotted in replanting areas.

## Environment

(GRI 102-12, GRI 102-13, GRI 102-15, GRI 103-2)

UP strives towards being recognized as the leader in sustainable agricultural practices, environmental performance whilst safeguarding natural resources and respecting the balance between economy and ecology. We focus on continuous improvement in order to minimize waste and our overall carbon footprint and through investments and a dedicated Group Sustainability Committee, we have introduced policies to break the link between palm oil and deforestation.

### UP – A responsible producer of Palm Oil

As a responsible producer of Palm Oil, UP strives towards being selected as a preferred supplier of superior quality, certified and segregated palm oil traceable back to the plantations.

We fully adhere to the principles & criteria of the RSPO and have voluntarily incorporated higher standards that amongst others ensures:

- No deforestation
- No new development on peat soils
- Reduction of Greenhouse Gasses (GHG)
- Increased focus and respect for local and indigenous communities including smallholders and benefit of their socio-economic development.

We are committed to Responsible Agricultural Practices and strive towards finding the right balance between Economic, Social and Environmental aspects of our business.

### Committed to Continuous Improvement

UP's objective is to become even more environmentally friendly by being committed to continuous improvement. In order to achieve progress various environmental projects are implemented, consumption and emissions are monitored, and best practices are identified by benchmarking aspects of our operations internally and externally.

To further emphasise our commitment on sustainability UP has since becoming the World's first RSPO certified plantations in 2008 as well as achieving, in 2017, the World's second RSPO NEXT Certification and the first for Asia Pacific and Africa, introduced additional environmental policies and focused on further improving our good agricultural practices that go beyond the RSPO's existing principles and criteria.

### Environment Footprint



UP is very much aware of the footprint it leaves on the environment. Our group therefore constantly strives towards reducing variables that impact the environment negatively. Focus on reducing GHG, energy, water and waste is therefore a vital part of UP's environmental policy.

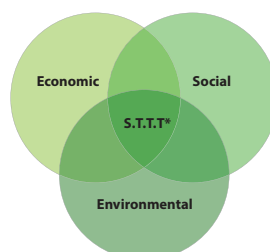
The following pages describe UP's various environmental projects, policies and commitments in place as well as progress made.

### Environment Policies in place

- i) Zero-burn policy (1989)
- ii) No primary forest clearing policy (1990)
- iii) No bio-diesel production /supply policy (2003)
- iv) No HCV forest clearing policy (2005)
- v) Methane capturing policy (2006)
- vi) No Paraquat use policy (2010)
- vii) No new planting on peat policy (2010)
- viii) High Carbon Stock Assessment & Land Use Change Analysis for new plantings (2014)

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

Sustainable Development



\*Sustainability through Transparency, Traceability & Trust

## 7. Biodiversity and Conservation (GRI 304-2, GRI 304-3)

Efforts undertaken by the UP Group to conserve jungle reserves and wildlife sanctuaries as well as promoting green corridors as part of our commitment to the environment

### Environmental and Biodiversity Policy

We at United Plantations Berhad are committed to sustainable development through protection of the environment and conservation of biodiversity. Our objectives: -

- Conducting our operations under the best principles of agriculture, that is compatible with the natural environment and in full support of Integrated Pest Management techniques and Best Management Practices for existing plantations on peat.
- Promoting the conservation and development of biodiversity within our group of plantations.
- We want to ensure that our agricultural operations comply with the following criteria:
  - No development on high carbon stock forests (HCS)
  - No development on high conservation value forest areas (HCV)
  - No new development on peatland regardless of depth
  - Not to operate or develop within international or nationally designated protected areas
  - Compliance with all relevant laws and National Interpretation of RSPO Principles and Criteria.

We strive to maintain an open and dynamic approach towards continuous improvements in respect of HCV, HCS and GHG Emissions to strengthen our commitment on No Deforestation.

- Continuously working to mitigate our water footprint related to our operations, maintaining buffers along natural waterways, harvesting rainwater, frugal water usage, monitoring of its quality and judicious use of pesticides and weedicides.
- We are committed to reduce and phase-out chemicals that fall under the WHO Class 1A & 1B and Stockholm or Rotterdam Conventions. We will continue working with

stakeholders to determine and implement alternative pest control strategies to totally phase-out these chemicals when effective and suitable alternatives are available.

- Continuously working on sound soil management e.g. determining appropriate amount and composition of nutrients based on annual leaf nutrient analysis, empty fruit bunches systematically applied in field, planting of leguminous cover crops.
- Continuously working towards a dynamic and innovative waste management and utilization system aimed towards zero waste and recycling.
- Continuously focusing on promoting new technologies with low environmental impact as well as reducing greenhouse gas (GHG) emissions.
- Capturing, poaching and hunting of native tree species and animals, especially Endangered, Rare and Threatened species are prohibited. However, we respect the traditional rights of indigenous groups and communities to hunt in legal, non-commercial and sustainable manner without involving Endangered, Rare and Threatened species and jeopardizing long-term viability of the species.
- We will strive to commit our employees, contractors, suppliers, trading partners and stakeholders to adhere to this policy and thereby focus on traceability within our supply chain.

### ACCA MaSRA Award

Our Group's sustainability goals and objectives summarised in our first official Sustainability Report 2016 were recognized as UP received the ACCA MaSRA Commendation Award for Biodiversity on the 25<sup>th</sup> January 2018.

### Adjacent Protected and Conservation Areas (GRI 304-1)

Our Kumai Estate in PTSSS is approximately 2km away from the famous Tanjung Puting National Park which is known to have a large diversity of forest ecosystems, including lowland forest, freshwater swamp forest, tropical heath forest which is called "kerangas", peat swamp forest, mangrove forest, and coastal forest.

Tanjung Puting was originally declared as a game reserve in 1935 and a National Park in 1982. It covers a total area of 415,040 hectares. The best known animals in Tanjung Puting are the orangutans, made famous through the long-term efforts of the Orangutan Research and

Conservation Program (predecessor to OFI), based at the landmark Camp Leakey research station.

Tanjung Puting is also the habitat for proboscis monkeys as well as clouded leopards, civets, Malaysian sun bears, mouse deers, barking deers, sambar deers, and the wild cattle known as banteng. Tanjung Puting hosts over 230 species of birds, including hornbills, deep forest birds, and many wetland species.

**Endangered and Protected Species**

UP has a policy of “zero tolerance” to the killing of endangered and protected species, herein also orang-utan, *Pongo pygmaeus*. Staff that are directly or indirectly involved with the killing of and/or solicitation of killing, trading and harvesting of endangered and protected species, be it plants or animals, will be dismissed immediately. To the best of our knowledge, illegal killing and capture of orang-utans has not taken place on any of the properties under the legal management /jurisdiction of UP.



An adult and young Bornean Orang Utan (*Pongo pygmaeus*).

**Zoological Society of London (ZSL)**

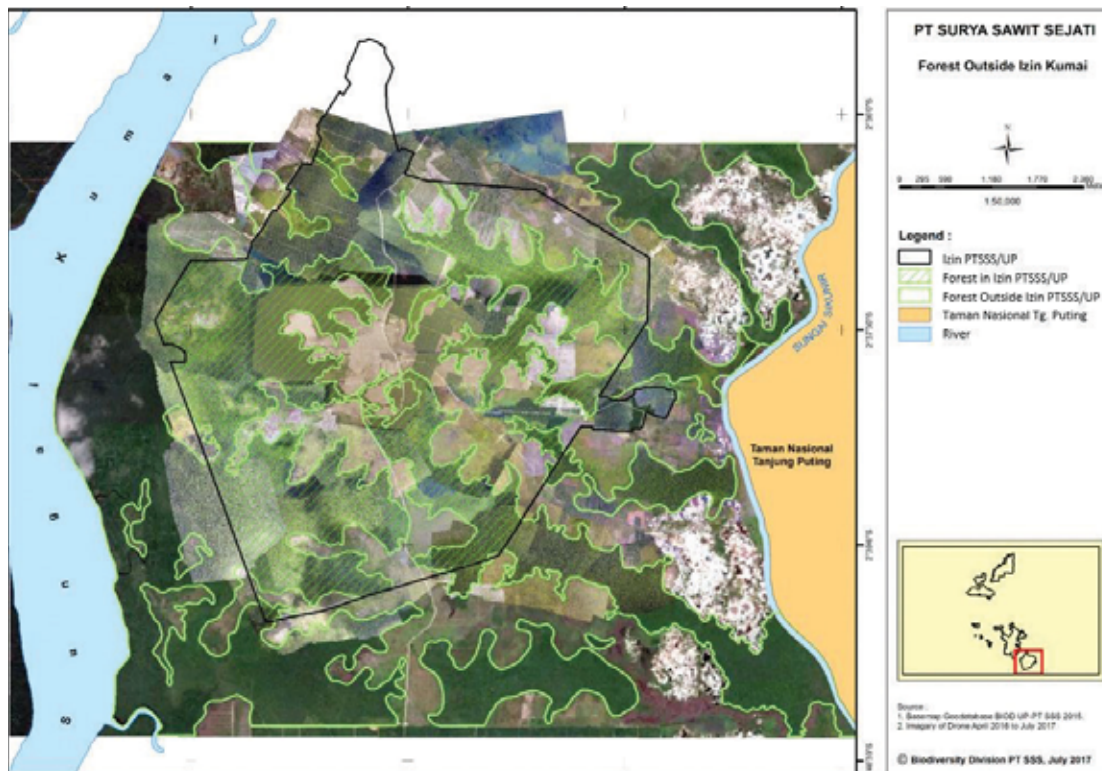
UP participated in the Zoological Society of London’s (ZSL) Palm Oil Transparency Toolkit (SPOTT), designed to measure best practice on disclosure and Company Transparency.

The Sustainable Palm Oil Transparency Toolkit (SPOTT) promotes industry transparency and accountability to drive the uptake and implementation of environmental and social best practice in high biodiversity impact sectors. SPOTT’s online platform provides a scorecard and detailed assessments of upstream companies based on public disclosure of their operations, commitments and progress towards the implementation of best practice.

SPOTT is designed to measure transparency of Companies to disclose sustainability related matters in public domain via RSPO Annual Communication of progress (ACOP), RSPO New Planting Procedures (NPP) Public Notification, Company Annual Report and Company Websites.

United Plantations Berhad maintains an active engagement and commits to collaborate with Zoological Society of London (ZSL) in the progress towards improved sustainability reporting and greater transparency.

Our current status on SPOTT assessment as of November 2017 is 81.90 % and ranked as 6 amongst the 50 assessed Global Oil Palm Plantations. (For more info see [www.zsl.org](http://www.zsl.org) and [www.spott.org/palm-oil/](http://www.spott.org/palm-oil/))



Conservation Area in Kumai Estate which is approximately 2km away from Tanjung Puting National Park.



Four-lined Tree frog (*Polypedates leucomystax*).



Pig-tailed Macaque (*Macaca nemestrina*).



Brahminy Kite (*Haliastur indus*).

## Biodiversity and Partnership



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 purpose representing approximately 16% of our total planted area in order to encourage biodiversity and wildlife on our estate. 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 partner 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.

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

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

## Biodiversity Department

The completion of the BioD office took place in a very short period of time and this remarkable achievement is a testament to the hard work and commitment by all involved.

The new BioD office was laid as part of the Lada Estate field office and was officially opened in September 2011, when the BioD made a short presentation to Her Royal Highness Princess Benedikte of Denmark, UP's senior management, Copenhagen Zoo's vice-director Mr. Bengt Holst, and other prominent guests at the new auditorium.

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 consisting of Dr. Carl Traeholt, our Group's Chief Environmental Advisor, Mr. Bjorn Dahlen Environmental Advisor, Mr. Muhd Silmi, Manager BioD and essential topic specialists,



Bearded pig (*Sus barbatus*).



Mangrove riparian reserve.



Fiddler crabs (*Uca sp*)

such as a limnologist, a forester/botanist, zoologist, herpetologist and a 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 in 2017**

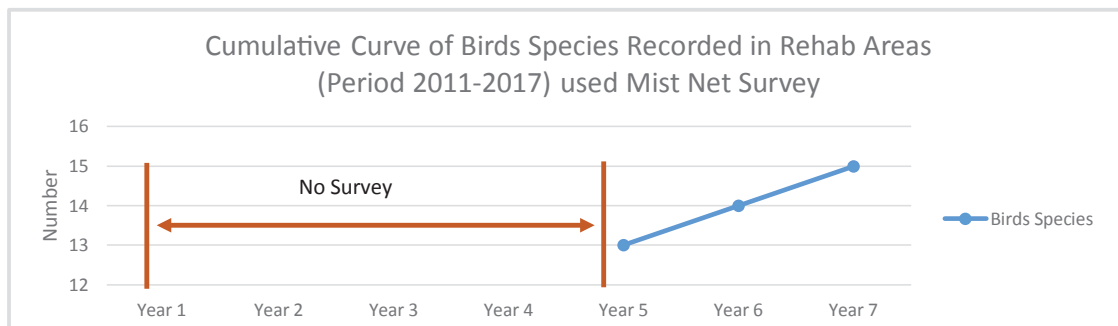
The value of safeguarding ecological integrity and biodiversity has never been more pertinent than in the past few years. The international community convened in France, December 2015, and pencilled out the ground breaking “Paris Agreement” aimed at preventing severe and rapid climate change.

This also charted the path for independent countries, local societies and the corporate sector across the World to do their bit for the sake of everyone on Earth, but in particular the future generations. “Think Global, act local” is the simple way to describe the responsibility that is bestowed on all of us.

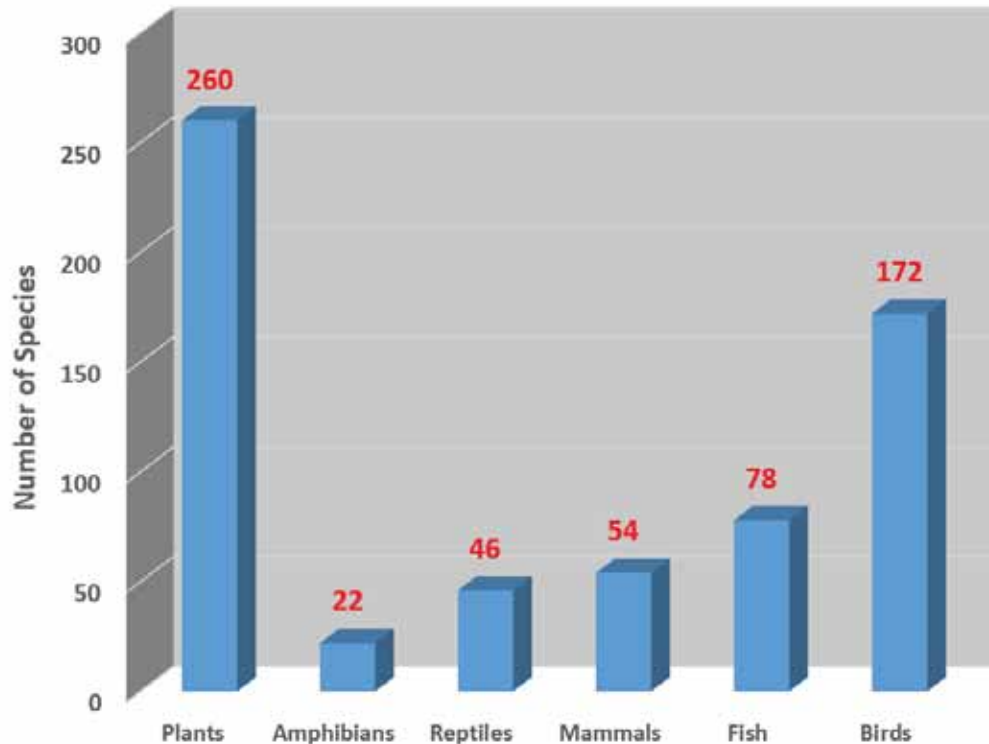
However, some bears a bigger responsibility than others, simply due to a bigger climate change “foot print”. The agricultural sector, in general, are most often involved in activities that result in heavy biodiversity loss as well as significant changes in land composition and ecosystems. This is also true for the oil palm industry and this is one of the main reasons for the formation of UP’s Biodiversity Division 7 years ago.

Like the previous years, 2017 was an incredible busy year for the BioD-team in PTSSS. In the span of the past 12 months, the team undertook range of baseline biodiversity surveys in PTSSS’ conservation areas; monitored hundreds of km of rivers for water quality; collected, propagated and planted tens of thousands of native tree seedlings for rehabilitation processes and participated in a range of national and international events. Most of all, the BioD team contributed to and ensured that the biodiversity and environmental part of the year-end RSPO-audit passed with flying colours.

**Birds Diversity in Rehabilitation areas Field 86**



2017



*The number of tree and animal species keep increasing with new records been added to the list every year. In 2017, four new birds, three reptiles and one mammal were recorded.*

#### Wildlife at PTSSS (GRI 304-4)

Baseline biodiversity surveys have been undertaken in Kumai to establish a “measuring” point for future monitoring purposes. The BioD team has recorded a total of 172 bird species in PTSSS’ conservation areas, along with many fish, mammals, reptiles and amphibians, many of which are listed as Critical and Endangered on the IUCN red-list of threatened species. In 2017, four new bird species and three amphibians were added to the list.

Finally, Borneo’s largest terrestrial predator, the Sunda clouded leopard (*Neofelis diardi*) was recorded. Borneo’s largest cat weighs up to almost 30kg and is one of the best tree climbers in the cat family and capable of supination --- that is, turning their paws backwards from normal position.

This means that they can climb down trees head first and along horizontal branches with their back to the ground. Therefore, they spend a lot of their lives in the trees hunting, even if they are equally at home on the ground.

The recent record of the illusive clouded leopard in PTSSS means that the conservation areas

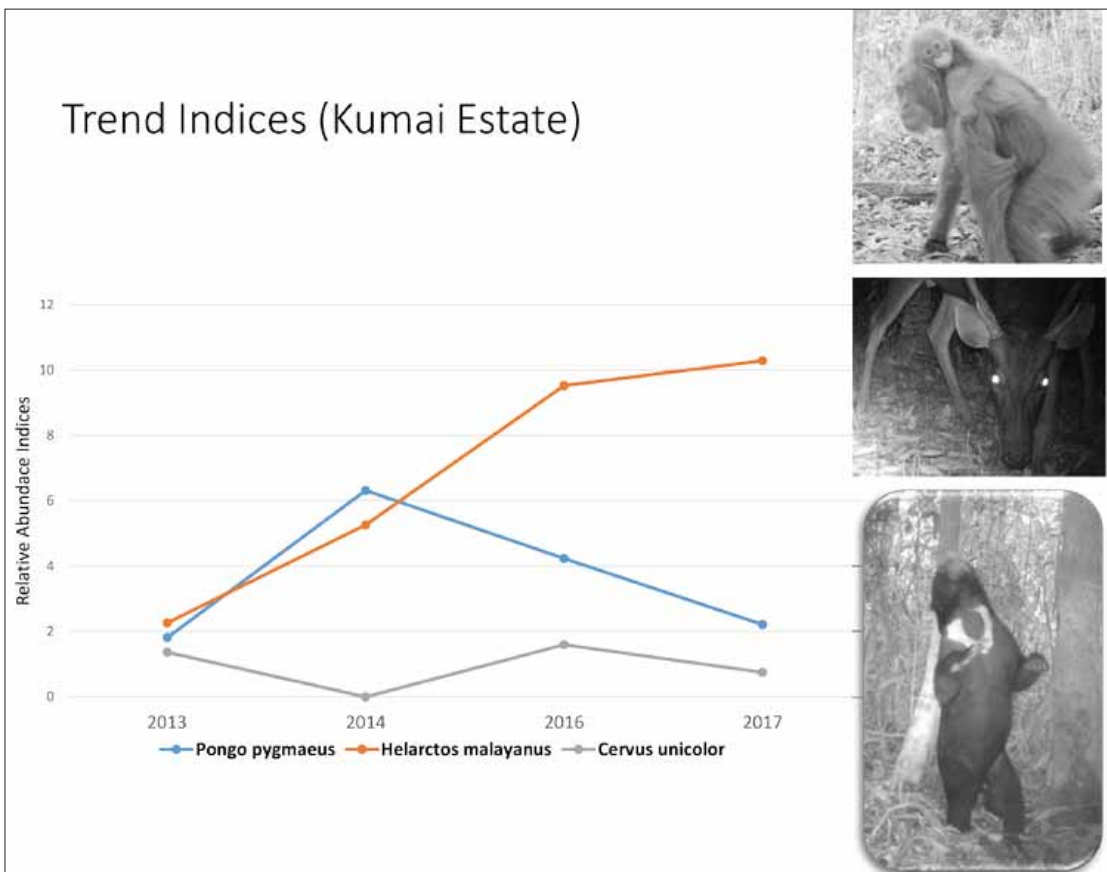
contains four of Borneo’s five wild cats. This is an incredible number, considering the relatively small conservation areas in PTSSS. It is both a testament to the good habitat condition in the area as well the dedicated monitoring effort undertaken by the BioD team. To date, the team has monitored 129 camera traps sites for a whopping 15,477 trap nights.

The general diversity of wildlife is extraordinary and in the future the BioD team will continue to monitor specifically understory bird communities, as they are excellent indicators of the structural integrity of the forest ecosystem in which they live. In fact, birds are being used as indicator species in a rehabilitation site in Lada Estate’s Field 86.

Since the onset of rehabilitation began in 2010, native trees have grown to over 6m and the bird community is slowly but steadily increasing with 16 species recorded in comparison to three at the beginning of the process. This is a wonderful sign that the rehabilitation intervention really works and that it is possible to bring back some of the diversity to even a relatively small patch of forest. The biodiversity surveys have also kept a log on other species. (Please refer to the pictures and chart related to Bird Diversity on page 89)



Borneo's largest terrestrial predator, the Sunda clouded leopard (*Neofelis diardi*) was captured by a camera trap in one of PT SSS' conservation areas.



Relative abundance is the percent composition of an organism of a particular kind relative to the total number of organisms in the area. Monitoring the presence of Mammals in PT SSS' conservation areas over a period of time provides the BioD departments useful information about the trend in various population sizes and the general health of the conservation area.



## Monitoring freshwater plankton

In the past 18 months, the BioD team has expanded its water quality monitoring to include plankton. While measuring and monitoring chemical and physical clues in water quality (e.g. O<sub>2</sub>, NO<sub>3</sub>, PO<sub>4</sub>, siltation) is important, it remains merely “proxies” for what actually happens to the ecosystem in the water.

Plankton are microscopic organisms that live suspended in the water environment. They form a very important part of the freshwater community as they are a form of “food chain building blocks” for almost all other organisms in the system. Even these, the smallest living species, sustain some of the largest living species.

Sea plankton are the main food source of the largest fish in the world, the whale shark, as well as many whales. In freshwater habitat, they form important indicators of the water quality, since they occur in the thousands and are capable of occupying small as well as large expanses of water and multiplying at an exponential rate. This makes them ideal for monitoring purposes, since they “react” rapidly to changes in the ecosystem and their numbers make most sampling statistically robust.

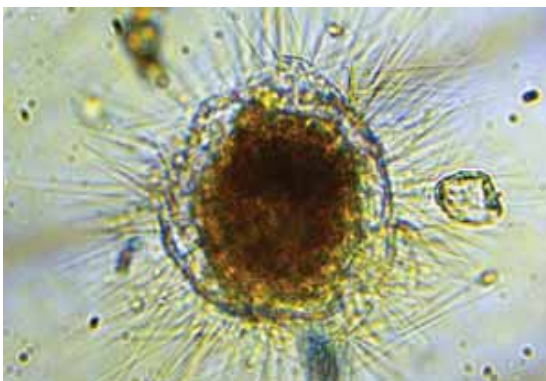
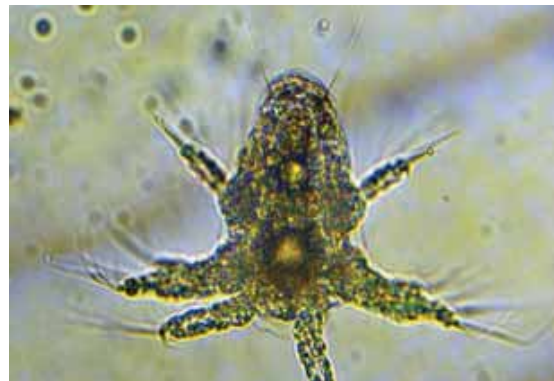
Plankton can be subdivided into two categories, namely Phytoplankton, which are microscopic

plants that obtain their energy via photosynthesis. They are important to the ecosystem because they recycle, for example, carbon and sulphur. They are also an incredibly important food source for freshwater “herbivores”.

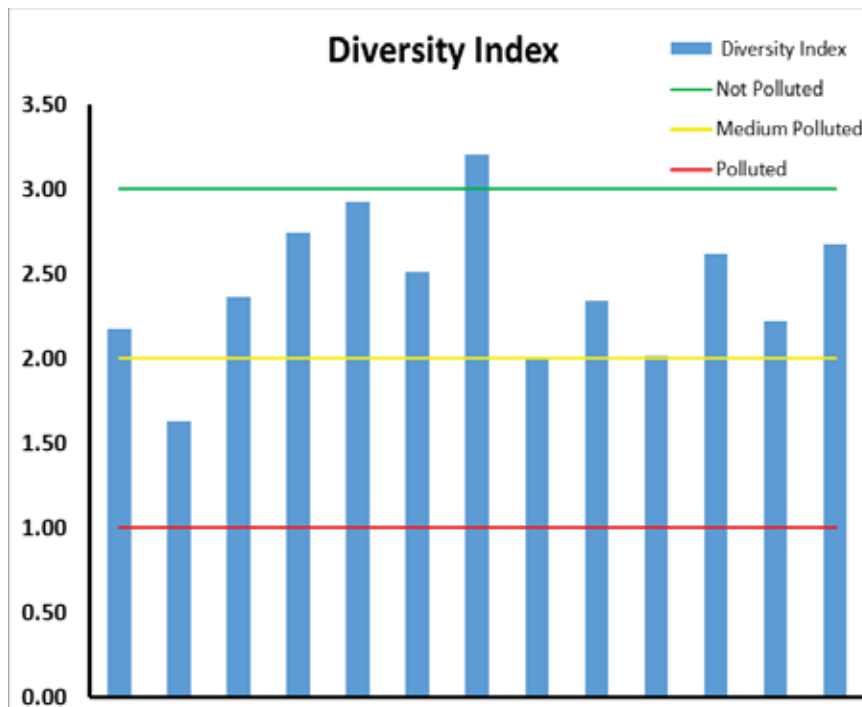
The Zooplankton consist mainly of crustaceans and rotifers, basically animal plankton without photosynthetic capabilities. They are often consumed by freshwater “predators”, typically carnivorous fish, tadpoles and salamanders along with a range of insects with a water born larval stage e.g. dragon flies.

The BioD team has commenced on an ambitious project in Kumai Estate, a state-of-the-art plantation development. Here, the streams remain largely intact and even small changes in, for example, sediment loads, fertiliser washout and temperature change can affect the plankton community.

For the past 18 months, 12 monitoring stations have been setup and a total of 69 species of plankton recorded. These indicate that most of the Kumai streams are generally in good condition, yet still impacted by plantation operation. The BioD team will setup similar monitoring stations in the rest of PTSSS, to better manage water quality in the future.



Various types of plankton identified in PTSSS' Kumai Estate. From Upper left: *Diatoma sp*, *Nauplius*, Bottom left *Golenkinia radiata* and *Centronella sp*.



Plankton acts as a good indicator of ecological integrity in streams and lakes. Most of Kumai's streams are in relatively good condition with little pollution. However, they remain affected by plantations operation with only one stream qualifying as "not polluted".

Research and conservation

The research into using leopard cat, *Prionailurus bengalensis*, as biological pest controllers of rats in Lada Estate continues unabated. To date, the study area has not needed chemical treatment.

In 2017, the BioD team recorded an increase in the leopard cat population. This is a positive result of habitat enrichment and maintenance at estate level, where palm fronds are left to decompose naturally, from where many other native plants, ferns and shrubs sprout. It creates ideal cover for leopard cats. (Please refer to page 130 for further details on leopard cats)

In 2017, the BioD Team began a census of gingers in PTSSS' conservation areas. Gingers are rhizomatous perennial herbs, mostly aromatic, in a plant family with approx. 1500 species. Its centre of diversity in Asia and Borneo contains almost 250 species, many of which are endemics.

They are a very important group of plants due to the multitude of human use. Some gingers are known as popular spices such as ginger, galangal, turmeric and cardamom, whereas other species are utilised as vegetables or for medicinal uses. To date, the BioD Team has collected and identified 15 different species of ginger.



Some of the beautiful gingers found in PTSSS' conservation areas.  
 Left: *Zingiber ottensii*. Right: *Zingiber viridiflavum*



*The King Cobra team along with visitors and participants from OFI. Front left: Mr. Muhammad Silmi, Drh. Prima Anggara, Mr. Cameron W. Hodges, Dr. Biruté Mary Galdikas, Dr. Matthew J. Goode.*

The BioD team also continued research into the charismatic king cobra, the world's largest venomous snake species. Following previous year's work, the BioD team's collaborators led by Dr. Matthew J. Goode, University of Arizona and Mr. Cameron Hodges, Oklahoma State University visited PTSSS again in November, 2017.

The king cobra and black cobra work is also supported by Orangutan Foundation International (OFI) that provided expert support from their veterinarian. The work spurred a rare visit by Dr. Biruté Galdikas, reknown primatologist and founder of OFI and the famous Camp Leakey in Tg Putting National Park as an orangutan reserve.

The visit was the most successful to date, with the group capturing four king cobras and two black cobras and successfully implanting radio-transmitters into all of the snakes. All snakes were released into the same locations as where they were captured and are now being tracked daily by the BioD team.



*OFI veterinarian, Drh Prima Anggara, Dr. Matthew J. Goode and UP's Muhammad Silmi in the process of implanting a radio-transmitter into a 4m long king cobra at a make-shift surgery table in the Biodiversity Division office, PTSSS.*

The rehabilitation of several degraded conservation areas are ongoing. Some are progressing well, some less so. The past year saw the conclusion of the first phase of monitoring tree mortality in Runtu Estate's conservation area. The area consists of deep peat that is inherently difficult to management and rehabilitate.

This is aggravated by being part of a complex ecological and hydrological ecosystem, with the major part being outside UP's boundaries. The results of a 3-year study and monitoring of habitat integrity revealed a severe tree mortality in these conservation areas.

This is of major concern, since it increases the amount of dry fuel-load and risk disastrous uncontrolled fires. The BioD team in collaboration with the relevant Estate is working hard to eliminate the potential fire risk by improving water management in the area.



*Mr. Cameron W. Hodges providing oxygen to a sedated king cobra during transmitter implantation at the Biodiversity Division office, PT SSS.*



*Sumatran Cobra (Naja Sumatrana)*



*King Cobra (Ophiophagus hannah)*

### National and international engagement

It is not common to experience a palm oil plantation company being represented at the forefront of biodiversity and conservation conferences and workshops. However, by creating a biodiversity division, such obligations and responsibilities follow, because the division needs to be constantly updated with new research, methods and status of various species, habitats and conventions.

In essence, it is important to remain relevant rather than slide into a state of redundancy. It is pleasing to see, then, that UP was represented at the world's inaugural International King Cobra Symposium that took place in Holland, October 2017.

BioD manager, Muhd Silmi delivered a presentation about the ongoing king cobra research in PTSSS, a wonderful testament and acknowledgement that the hard work by the PTSSS team is regarded as internationally important. After the Symposium, Muhd Silmi visited UP's collaborator, Copenhagen Zoo, where he also delivered a presentation for the Zoo's staff as well as invited guests, among these UP's Copenhagen staff.

The BioD team also participated in the important Indonesia Carnivores Conference, held in Banyuwangi, East Java in November, 2017. The BioD

team's Mahfud Huda prepared a comprehensive poster of the team's ongoing monitoring and management activities of carnivores in PTSSS' conservation areas. There have been, and continue to be, many more accomplishments and activities concerning biodiversity conservation and management in PTSSS. The above is merely a snap-shot of the BioD activities that reflects an incredible dedication and passion for their work.

### Concluding remarks

In conclusion, there only remain to be said that 2018 will be another very busy year, with a continuation of numerous ongoing and important activities on-site, as well as new projects. There are also three relevant and "must attend" international events taking place i.e. the European Association for Zoos and Aquaria Conservation Forum (May, 2018), the Association for Tropical Biodiversity and Conservation (Kuching, July, 2018) and the Society of Conservation Biology's Asia Section conference (Kyrgyz Republic, August, 2018).

On behalf of Copenhagen Zoo, I would like to thank the management at PTSSS for their support; to UP's EXCOM for their continued dedication to responsible plantation business.

**Dr Carl Traeholt**

*UP Group Chief Environmental Advisor*



*Biodiversity Manager, Mr. Muhammad Silmi (last row, far right) represented UP at the 1<sup>st</sup> International King Cobra Symposium, Holland, October 2017.*



*United Plantations Bhd was represented at the important Indonesian Carnivores Conference held in Banyuwangi, East Java. The BioD Team's Mr. Mahfud Huda prepared a poster of the ongoing monitoring and management of carnivores in PTSSS' conservation areas. Other was; Mr Wido Rizki Albert (FFI), Ms. Sharmy Prastiti (Taman Safari Indonesia).*



Reticulated python (*Python reticulatus*)—occasionally found around our waterways.



Waterways in our plantations are attractive habitats for water loving animals. Spotted here are the Purple Heron (*Ardea purpurea*) and a family of energetic Otters (*Amblonyx cinereus*) next to a young coconut planting.







*Native jungle trees successfully raised at our jungle tree reserves and planted to enrich the diversity in our reserves.*

### Tree Reserves

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

This Lagoon Tree Reserve, commenced planting in 2008 in several phases, is now developing into a dense jungle-like forest, surrounding the lake which is stocked with local species of fish, and attracts the Malayan Otter as well a variety of birds such as the Brahmin hawks, egrets, fish eagles, and king-fishers.

The Lagoon Tree Reserve and Main Office Parks, totalling 20 hectares is the main source of seeds (the "Mother Trees"). The seeds are collected and raised at the nearby tree nursery until these reach the desired size for transplanting into reserves throughout the UP Group. To date, a total of 18,000 trees have been planted from a wide range of 275 species and 60 diverse Family Groups which is a sound basis for future enrichment of biodiversity and conservation.

The Anak Macang Riverbank Reserve.

The main focus of work on the tree reserves during 2017 has been intensified planting of species along the embankment of the river at the southernmost boundary of UIE Estate.

This parallel strip of land measuring 5.85 kilometres long and 20 meters wide, has been 'set aside' to revert to natural vegetation upon replanting, and which is an area UIE has focused

on by enrichment planting of indigenous trees from Malaysia since 2011. To date, 3000 trees from a range of diverse species that provide food and shelter for birds and small mammals have been planted along this reserve.

Ulu Bernam Optimill.

A sizable number of trees from the UIE indigenous tree nursery have been sent to the UP Group Estates, Upriver, and in particular for the new Ulu Bernam Optimill project for establishing its own Tree Park which can be used for gathering seeds and conservation later on.

Apart from UIE's tree nursery, a wide variety of large size 'rare and endangered' trees have been sourced from Penawar Hutan Nursery, Malaysia's leading supplier of rare jungle trees, so that United Plantations will be able to carry out its commitment to conservation and future development of Indigenous Malaysian Jungle trees.

As usual we are grateful to Malaysia's "Tree Guru" (Mr James Kingham and his family, owners of one on Malaysia's largest and most diverse tree nurseries) who has provided us with much generous time and advice over the years for direction and the way forward.

**Geoffrey Cooper**

*Estates Director, Downriver*



*Tree planted at one of the Ulu Bernam Optimill Park areas. Since January 2017 to date , 895 trees, from 73 species and 19 Family groups have been planted around the Ulu Bernam Optimill area.*

#### Lima Blas Jungle Reserve

With the acquisition of Lima Blas Estate from Socfin Plantations Sdn Bhd in December 2003, United Plantations also inherited an 85 hectare jungle in the estate.

Situated on a hill behind the site of the now decommissioned palm oil mill, the manager's house situated in the midst of this reserve was designed by a Mr B M Iversen, the brother of Mr W M Iversen who was the first manager of Lima

Blas Estate. Built in the late 1920s, this 90 year old bungalow still stands tall in the midst of the jungle reserve today.

The jungle reserve has been enriched with Malaysian native jungle trees sourced from Kingham nursery over the years and as part of an on-going exercise, forest rangers have been invited to identify and catalogue some of the trees in the reserve which is believed to include tress from *Magnolia* sp. amongst other native tree species.



*Amidst the tranquil setting of lush greenery is the Manager's bungalow which was built in the late 1920s.*

### 8. Deforestation and High Carbon Stock

This relates to avoiding land clearing in High Carbon areas, thus preserving the forest. The approach has ensured that UP is in full compliance to its NO deforestation policy of July 2014

#### New Planting Procedure (NPP)

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, in order to help guide responsible planting.

The NPP applies to any development of new plantings, regardless of size (Ha). 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.

A successful implementation of the NPP ensures that all the indicators of the RSPO Principles and Criteria (P & C) 2013 Principle 7 are being implemented and therefore in compliance when the new development starts. One of the outputs of the NPP is a report that proposes how and where new oil palm plantings should proceed, or not, for a given management area.

The NPP report is posted on the RSPO website for public consultation for a duration of 30 days. Planting and any associated development (such as road development) can only begin once the NPP is completed and RSPO approval is granted.

### High Conservation Value (HCV) Assessment

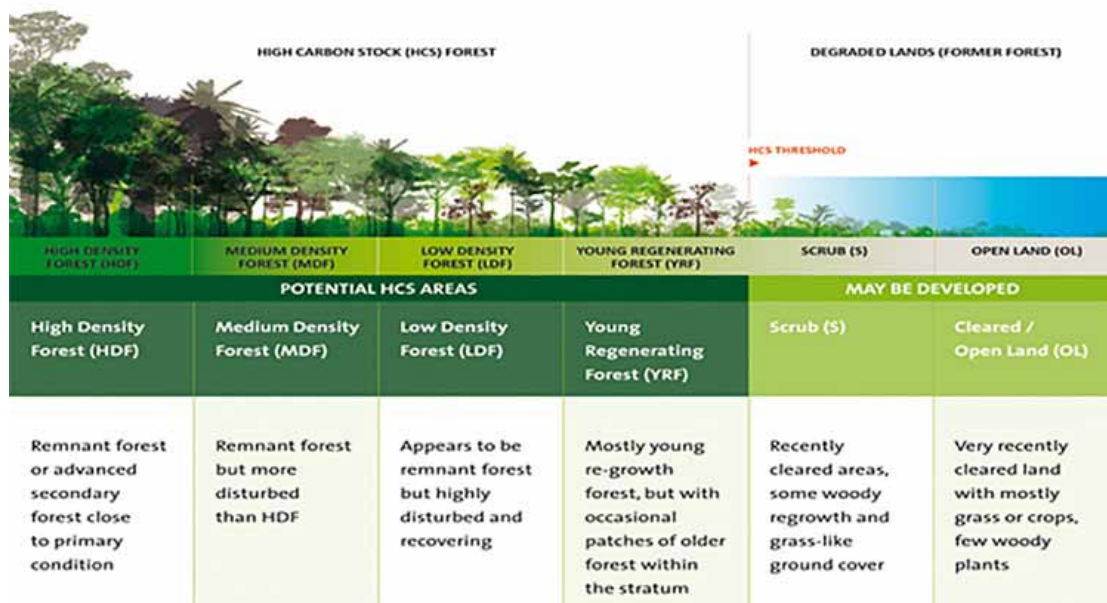
As a member of RSPO, UP is 100% committed to embrace and implement the sustainability concepts outlined in the RSPO Principles and Criteria (P&C). In line with the RSPO P&C as well as Indonesian laws, Environmental Impact Assessments (EIA's) and HCV Assessments were conducted prior to commencing plantation development by UP.

UP has not only followed the recommendations of these assessments but expanded the scope to include much larger conservation areas than that stipulated in the EIA and HCV assessments. To date more than 7,500 Ha are set aside as conservation areas in line with the Company's policy to maintain and manage the ecological integrity of the landscape in which UP operates its palm oil plantations, as well as to provide necessary habitat for endangered and critically endangered species that are found in or adjacent to UP properties.

### High Carbon Stock (HCS) Assessment

Since 2014 UP has introduced a High Carbon Stock Policy to all its future developments.

HCS Assessment is a methodology that distinguishes forest areas for protection from degraded lands with low carbon and biodiversity values that may be developed. The methodology was started by Golden Agri-Resources(GAR) and Greenpeace during the development of GAR's Forest Conservation Policy, with the aim to ensure a practical, transparent, robust, and scientifically credible approach that is widely accepted to implement commitments



to halt deforestation in the tropics, while ensuring the rights and livelihoods of local peoples are respected. Since 2010, the HCS approach has had separate expert reviews and inputs from multiple stakeholders to develop a methodology which is a practical tool to address the need for forest protection within agricultural development.

“The amount of carbon and biodiversity stored within an area of land varies according to the type of vegetative cover. The HCS Approach stratifies the vegetation in an area of land into six different classes using analyses of satellite data and ground survey measurements. These six classes are: High Density Forest, Medium Density Forest, Low Density Forest, Young Regenerating Forest, Shrub, and Cleared/Open Land. The first four classes are considered potential High Carbon Stock forests.

Each vegetation class is validated through calibration with carbon stock estimates in the above-ground tree biomass and field checks. Community land rights and uses are mapped, and the HCS forest patches are further analysed via a Decision Tree to identify viable and optimal forest areas for potential protection and areas for development.

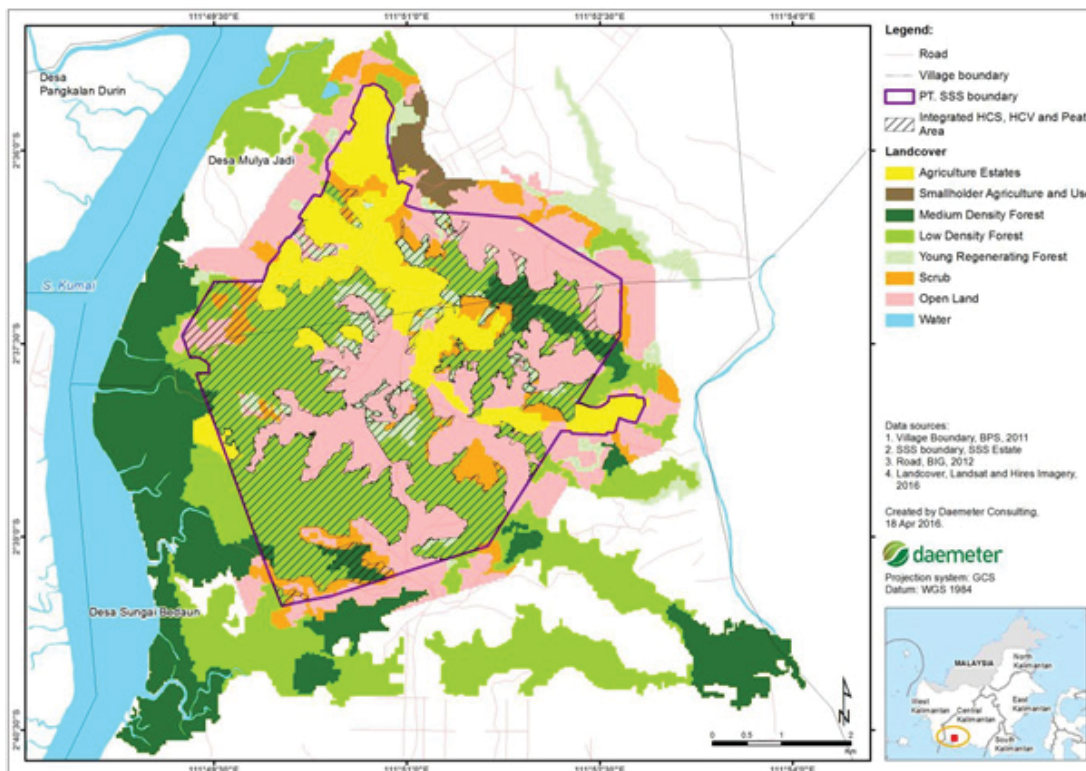
The methodology respects local community rights through its integration with enhanced Free Prior and Informed Consent (FPIC) procedures, and respecting community land

use and livelihoods. It requires participatory community-land use planning and management, applies conservation planning tools to the identified HCS forest areas, and combines with mapped community land use, HCV, peatland and riparian areas to delineate areas for conservation, restoration, community land use, and/or areas potentially available for plantation development.

The HCS Approach is a breakthrough for plantation companies and manufacturers who are committed to breaking the link between deforestation and land development in their operations and supply chains. The approach represents the first practical methodology that has been tested and developed in active concessions in Asia and Africa with input from a variety of stakeholders. It is a relatively simple tool that plantation companies can use for new developments while ensuring that forests are protected from conversion.

Identification of HCS forests can also help governments fulfil commitments to reduce greenhouse gas emissions resulting from deforestation because it allows the mapping of forest areas that should be conserved (thus preventing GHG emissions).

As of November 2016, the HCS Approach includes a convergence with the HCS+ — meaning there is now only one global HCS methodology.” (source:www.highcarbonstock.org/)



The consolidated map which integrates the results of the patch analysis (HCS area), peat mapping, HCV assessment and FPIC study in Kumai.

### UP's HCS assessment and Plasma development plans

In adhering to UP's No Deforestation Policy of July 2014 and minimizing its Carbon Footprint, UP in October 2014, requested Daemeter Consulting to perform a Land Use Change analysis as part of RSPO's New Planting Procedure (NPP).

Daemeter Consulting is a leading consulting firm promoting sustainable development through responsible and equitable management of natural resources, particularly in Asia's emerging economies. (For more info see: [www.daemeter.org](http://www.daemeter.org))

The Objective was to produce a land use map indicating exactly which areas ideally should be set aside for conservation.

Daemeter Consulting completed the Land Use Change Analysis in November 2014 which quantified the emissions associated to UP's intended new Plasma plantings in the Kumai concession area.

The Forest Trust (TFT), an international organization helping transform supply chains for benefit of people and nature, has reviewed Daemeter's Land Use Change Analysis and has

provided recommendations for leveraging off the Land Use Change work to facilitate a full HCS study. This recommendation has been followed in the final HCS report.

With the release of the HCS approach toolkit in March 2015, UP requested Daemeter Consulting to use this method to undertake a full HCS study of the identified new areas for Plasma Development in Kumai.

The consolidated map on page 103 was prepared by Daemeter based on their final HCS report released in August 2016, indicating the concession area, the outcome of the HCS, HCV, FPIC and peat surveys, thereby incorporating social and environmental considerations in line with RSPO's NPP guidelines.

Daemeter's assessment found that 40% of the concession area surveyed is recommended to be reserved from development because it is either considered HCS, HCV or located on peat soils.

This has been fully adhered to and the plasma development project in the Kumai conservation area has progressed well during 2017, and is a fine example of how development and conservation can go hand in hand for the benefit of the local community and the environment.



*Conservation and development going hand in hand based on the NPP and HCS assessments.*

### Environmental concerns

Oil palms are highly efficient producers of vegetable oil, requiring less land than any other oil-producing crop. Despite being one of the more sustainable sources of vegetable oil, there is concern that the growing demand for food and biofuel could lead to rapid expansion of palm oil production and result in serious environmental and social consequences.

### NGOs and Palm Oil

Palm oil producers worldwide, continue to be exposed to much criticism by predominantly Western Non-Governmental Organizations (NGOs). Their accusations take the form of generalized views that disregard the positive socio-economic impact of the industry and continue to highlight mainly allegations of deforestation, environmental degradation, social conflicts and economic problems.

Nonetheless, dialogue with NGOs in a constructive atmosphere of goodwill and fairness is essential in order to pursue the process of achieving a balance between the natural environment and habitat as well as the need for economic development. Those dedicated to this cause always need to be aware of the other side's case and thereby do their best to remain objective.

Consequently, the RSPO promotes sustainable palm oil production practices that help to considerably reduce deforestation, preserve biodiversity and respect the livelihoods of rural communities.

### Deforestation – How to balance Development & Conservation

UP has a clear commitment against deforestation as enshrined in several of our policies: 'No primary forest clearing policy (1990)', 'No HCV forest clearing policy (2005)' and 'High carbon stock assessment & land use change analysis for new plantings (2014)'. Whilst a certain portion of oil palm cultivation, just like all other agriculture, is a result of land use change, it is incorrect to single out the oil palm industry as the lightning rod for the world's growing anger on global warming and deforestation.

This has been clearly described in a recent article by Professor Corley published in the "The Planter" magazine, Vol. 92 No 1086, September 2016. Quote: "In the 29 main countries where oil palm is grown 78 million hectares of forest were lost between 1990 and 2000, while oil palm plantations expanded by 3.9 million hectares (FAO, 2011). Thus oil palm expansion can explain no more than 5 per cent of the loss in those countries. The rate of forest loss diminished between 2000 and 2010 (FAO, 2011), while oil palm expansion increased;



Conservation and Plasma development going hand in hand based on the NPP and HCS assessments in the Kumai conservation area.

FOREST LOSS AND OIL PALM EXPANSION IN OIL PALM-GROWING COUNTRIES  
Oil palm figures are for harvested area (data from <http://faostat.fao.org>)

Country/region	Forest loss ('000 Ha)		Oil palm expansion ('000 Ha)	
	1990-2000	2001-2010	1990-2000	2001-2010
Indonesia	19136	4977	1341	3766
Malaysia	785	1135	1329	1055
Thailand	545	32	134	338
Papua New Guinea	1390	1407	26	63
Colombia	1010	1010	46	30
Brazil	28896	26421	12	61
Ghana	1354	1154	30	200
Nigeria	4187	4096	780	120
Other Latin America	12929	10362	134	245
Other Africa	7822	7628	75	164
Others	(491)	(493)	6	34
<b>Total</b>	<b>77563</b>	<b>57729</b>	<b>3913</b>	<b>6076</b>

Source: *The Planter*, Vol. 92, No. 1086, September 2016

PREVIOUS LAND USE OF AREAS PLANTED WITH OIL PALM BETWEEN 1990 AND 2010  
Oil palm figures are for total planted area (data from Gunarso *et al.*, 2013)

Previous land use	Indonesia		Malaysia		PNG		Total	
	kha	%	kha	%	kha	%	kha	%
Undisturbed upland forest	13	0.2	-	-	4.6	5.7	18	0.2
Undisturbed swamp forest	384	6.0	0.5	0	-	-	384	4.0
Disturbed upland forest	1207	18.9	1239	38.1	37	46.1	2483	25.6
Disturbed swamp forest	539	8.4	126	3.9	0.2	0.2	665	6.9
Shrubland and grassland	1679	26.3	20	0.6	34.6	43.1	1734	17.9
Agroforestry and plantations	2176	34.1	1119	34.4	-	-	3295	33.9
Bare soil, annual crops, unclassified	388	6.1	747	23.0	3.9	4.9	1138	11.7
<b>Total</b>	<b>6386</b>		<b>3252</b>		<b>80.3</b>		<b>9717</b>	

Source: *The Planter*, Vol. 92, No. 1086, September 2016

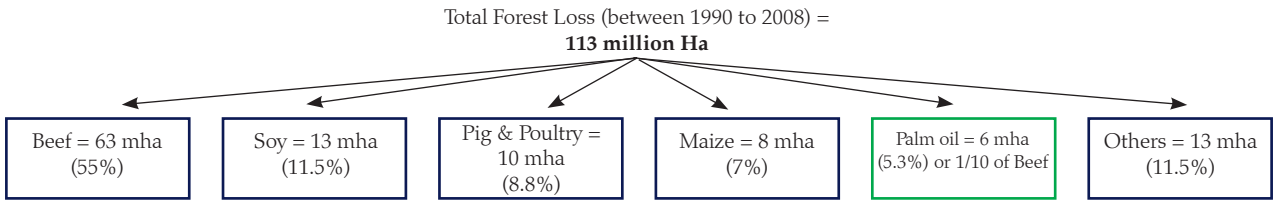
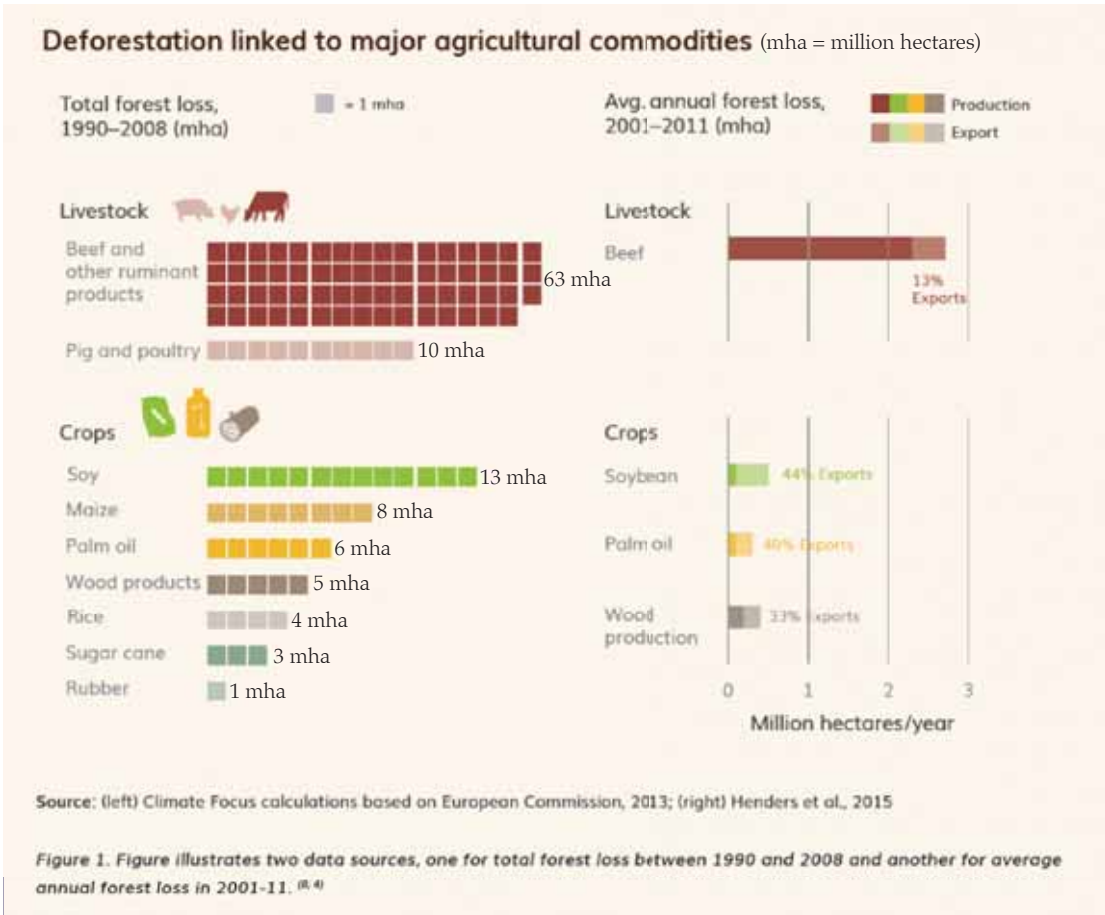
58 million hectares of forest were lost in the same 29 countries, while oil palm expanded by 6 million hectares. Worldwide, therefore, even if all oil palm expansion was at the expense of forest (which it was not—see first table below), it would still account for 10 percent of recent forest loss.

Most Expansion has been in Malaysia and Indonesia, and Gunarso *et al.* (2013) documented land use change in these countries and Papua New Guinea from Landsat images. Between 1990 and 2010, 4 percent of the 9.6 million hectares of oil palm expansion replaced undisturbed forest and a further 32% replaced disturbed forest (second table above).": Unquote.

Globally, according to the Food & Agricultural Organisation (FAO), about 12 million hectares of forests are cleared every year.

Between 1990 to 2016, more than 360 million hectares of forest were cleared and converted into other uses such as commercial ranching, agriculture, town expansion as well as infrastructural projects amongst others.

Oil palm areas globally have increased from 3.7 million hectares in 1990 to 18.1 million hectares in 2016 or a net increase of 14.4 million hectares or equal to less than 5% of the total deforestation from 1990 to 2016.



Nevertheless, whilst fully supporting and recognising that ongoing initiatives must be intensified to minimise the impacts of deforestation and greenhouse gas emissions, there is an acute need by the NGO fraternity and scientific network including politicians in the West to direct their attention on other areas which have a disproportionately greater impact on deforestation and greenhouse gas emissions.

In this context, it was with much interest that the US NGO, The Union of Concerned Scientist (UCS) who on the 14th of December 2016 published an article entitled "Ending Tropical Deforestation.

Have we got our Priorities Backwards?" in which concluded that the NGO fraternity including the UCS had got their priorities wrong.

The findings concluded that the main drivers of commodity-based deforestation were in fact not palm oil production but several other commodities.

An article by the USC states,

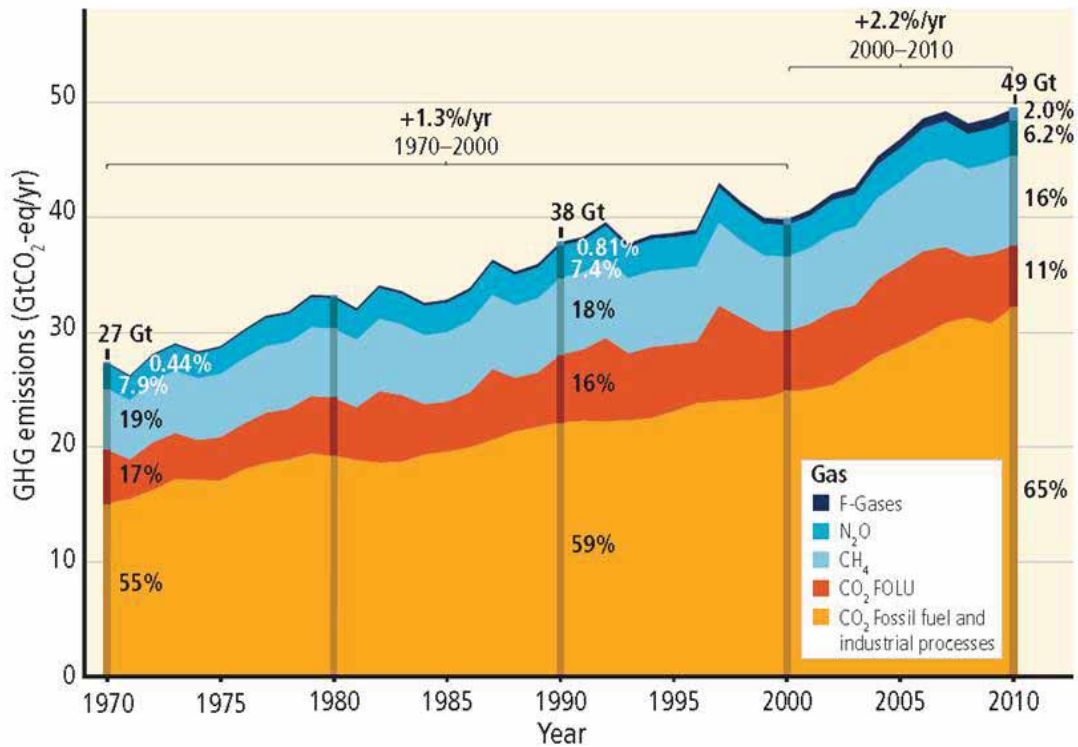
Quote: "I don't want to go overboard with the mea culpa here. Companies have to take responsibility to their actions, and their lack of action. They can't just say "The NGO community made me do it". But the Climate Focus Report and the new data from the Amazon demonstrate forcefully that when we get the priorities wrong, there are consequences": Unquote

Earlier in the same article it is also stated that

Quote: "The data is pretty clear: by far the biggest driver of deforestation is beef. Soy is second, but far behind in terms of importance and palm oil and wood products are even smaller drivers, causing only about a tenth as much deforestation as beef": Unquote



**Total annual anthropogenic GHG emissions by gases 1970–2010**



*Almost 80% of Global energy consumption today is still made up of fossil fuels.*

Likewise, 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.

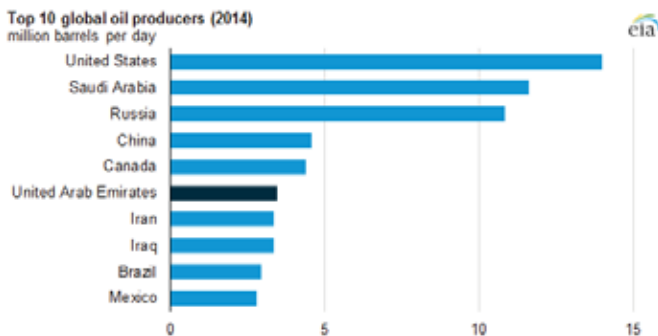
The world purchases about 93 million barrels of crude oil per day (equal to about 130.1 million MT per day).

to be seen as the stewards when minimising deforestation and greenhouse gas emissions.

Nevertheless, little 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> emissions/day or similar to the CO<sub>2</sub> (eq.) emitted from clearing 1793 hectares of tropical jungles per day or a deforestation rate of 650,000 hectares per year.

What we therefore need much more of is a balanced approach to what we all have to do to help minimise the impacts of deforestation and greenhouse gas emissions and not just a selected few. There must be a “commensurate effort” failing which trust will be eroded and goals will not be reached.

Indeed, things should be put in perspective and acknowledgement given to the fact that palm oil production is not the main cause of deforestation. Nevertheless whilst recognizing that 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.



In connection with the above it is important to apply more pressure on mineral oil producers as the impact on greenhouse gas emissions is larger than what most people believe. As an example, it is worthwhile mentioning a small country like Norway who has often wished



*Immature and mature oil palms flanking a collection drain which highlights the importance of water management in oil palm cultivation.*

**9. GHG Emissions, Discharges & Waste Management**

(GRI 302-2, GRI 302-3, GRI 302-4, GRI 306-1)

Investments and efforts undertaken to reduce GHG emissions, and in promoting green energy starting with the Biomass Reciprocating Boilers and Biogas Plants

**United Plantations' Carbon Footprint Initiatives**

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.

**Life Cycle Assessment (LCA)**

(GRI 305-1, GRI 305-2, GRI 305-3, GRI 305-4, GRI 305-5, GRI 307-1)

In 2006 following the completion of the world's first panel 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.

For example, 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.

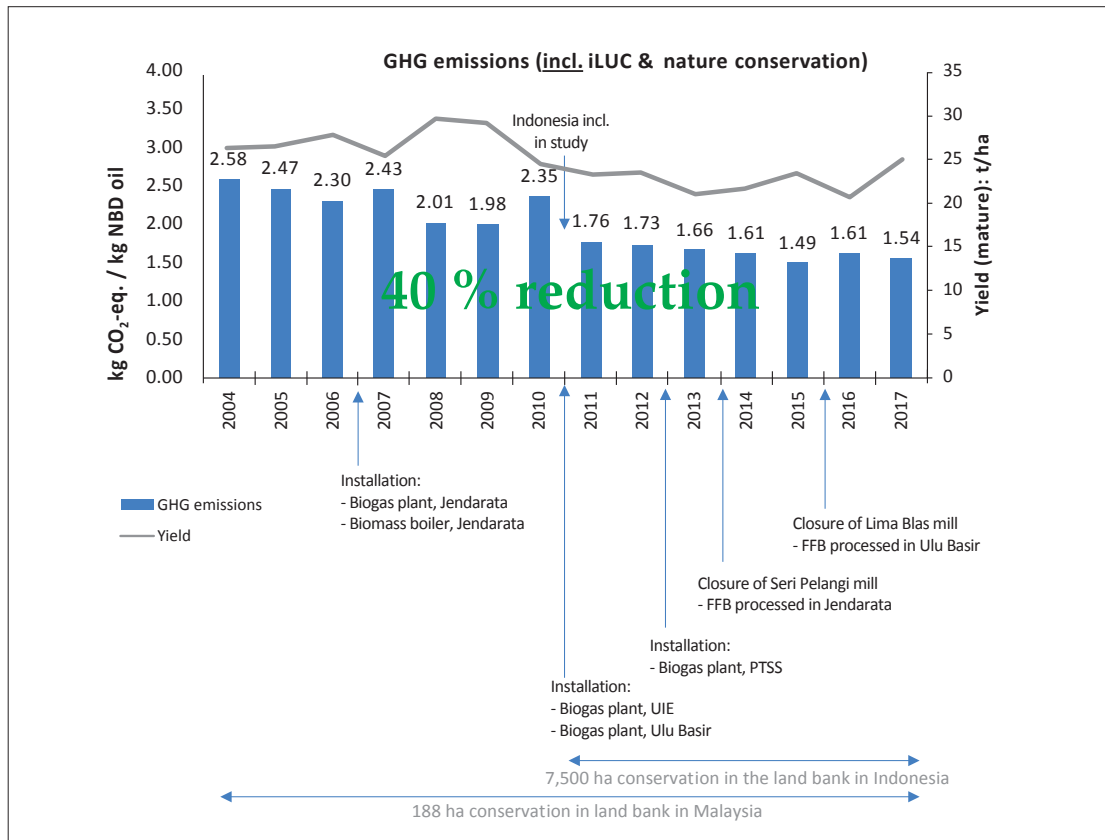
Further updates to this LCA were carried out by 2.0-LCA Consultant Dr. Jannick Schmidt from Aalborg, Denmark from February 2011 to May 2011 and since then on annual basis. During the period January to February 2018 Dr. Jannick Schmidt again updated UP's LCA study thereby providing management with a detailed and clear overview of the development in the Company's efforts to reduce its carbon footprint over the last 15 years.

More importantly the updated LCA has helped to identify additional areas in need of further improvement within our Group. Our Company continues to remain at the very forefront in terms of implementing GHG reducing projects within the Plantation Industry which will supersede the Kyoto Protocol's ambitions of reducing GHG emissions in industrialized countries by at least 5% below the 1990 levels in the commitment period 2008-2012.

**Methane Capture and GHG Reduction**

(GRI 302-4)

UP has several methane capture and GHG reduction projects including 4 CDM projects which have been registered under UNIFCCC. Combined, these projects have reduced the annual emission of GHG by a minimum 125,000MT of CO<sub>2</sub> (eq) thus enabling our Group to meet our target of reducing our "Carbon



Time-series for NBD palm oil at United Plantations Berhad (without iLUC) for year 2004-2017.

Footprint" per MT of refined palm oil produced by 40% (with iLUC and nature conservation) already in 2017 when compared to pre-2005 levels.

The effect of this work is illustrated by tracking the carbon footprint for the Company's production of palm oil each year from 2004 to 2017 and is summarised in the graph on page 110.

Good progress has been made over the years in reducing our impact on global warming (excluding iLUC) to 1.58kg CO<sub>2</sub>-eq for every 1kg of refined palm oil produced in 2017.

The major part of the impact originated from the oil palm plantations stage where the main contributors are field emissions of CO<sub>2</sub> from oxidation of peat soils (9% of UP's total areas are on peat) and N<sub>2</sub>O.

The other major contributor to GHG emissions is methane (CH<sub>4</sub>) derived from the waste water, from the milling stage which is transferred to the enclosed Biogas tanks for treatment and only after reducing the chemical oxygen demand by 80% the waste water is send to the anaerobic ponds for the final stage of breakdown before being distributed back into the fields as liquid fertilizer. If iLUC is included, the total

contribution of GHG emissions rises to 1.94kg CO<sub>2</sub> eq per kg of refined palm oil. Hence iLUC is a significant contributor to GHG emissions.

However, when taking into account the positive mitigating effects of including the Group's more than 7,500Ha of conservation set aside on UP's entire production, then the GHG emissions will be considerably lower at 1.54kg CO<sub>2</sub>-eq for every 1kg of refined palm oil produced in 2017. Nature reserves effectively cancelled out the negative impact of iLUC on our GHG emissions.

In conclusion, the UP Group has through awareness, investments and commitments managed to reduce its GHG emissions by 30% (without iLUC), 25% (with iLUC) and 40% (with iLUC and nature conservation) per kg of refined oil produced from 2004 to 2017.

#### Target 2019

With more initiatives and further investment between 2018-2019, our internal goal is to reduce UP's Carbon Footprint per MT of refined palm oil produced by 50% before the end of 2019 when compared with previous 2004 levels (with iLUC and nature conservation).



*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%, biogas is produced by methane bacteria and subsequently used as a source of green energy.*

## Emissions Reductions & Biogas Plants

(GRI 302-3, GRI 302-4)

Since 2005, significant investments have been made in promoting green energy starting with the initial 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.

### Indonesian Palm Oil Mill and Biogas Plant

To further reaffirm our commitment towards reducing our GHG emissions, our 4th Biogas Plant, the first of its kind in Central Kalimantan was commissioned in June 2013 at our Company's Palm Oil Mill in Indonesia.

The fifth and final biogas plant will be commissioned in 2018 and this will result in all mills in our Group having methane capture facilities in the form of Biogas plants which will be a most gratifying achievement.

### United Plantations 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 order to further improve our carbon footprint and to better utilise this resource, a Power Purchase Agreement was signed in December 2015 between TNB and UP, whereby

UIE has been given the right to generate and sell electricity back to the National grid.

In this connection, the biogas generated from the biogas plant (capacity 600m<sup>3</sup>/day) is scrubbed to remove the hydrogen sulphide and then used as fuel to generate electricity via a newly installed 1.2MW Biogas Engine, minimising the need for the closed flaring operation and utilising the biogas to offset fossil fuel consumption in generating electricity.

The final approval from the Energy Commission was obtained in October 2016, the electrical protection system was commissioned on 10th November 2016 and supply to the grid commenced in November 2016. An estimated 6.9 million kWh of electricity was generated by the Biogas Engine in 2017 and an additional unit of Biogas Engine will be installed in 2018 to ensure uninterrupted power supply to the grid.

### Biomass Reciprocating Boiler

The first Biomass Reciprocating Boiler (BRB1) 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.

Building on this success, a second biomass boiler (BRB2) was commissioned in September 2017. The BRB2 has a larger capacity of 45 MT per hour and is equipped with the VORSEP dust particle minimizing system, and an automatic fuel feeding system with greater energy efficiency and a lower labour requirement.



*Official opening of the Jendarata Biomass boiler No 2 at Jendarata Palm Oil Mill in December 2017.*

Isokinetic Monitoring of Gaseous Emissions from the Palm Oil Mills  
(GRI 305-7)

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 2017. The average dust concentration in the flue

gases of four palm oil mills in UP’s Malaysian Operations and the Indonesian mill without the VORSEP System were as tabulated. In all cases the average dust concentrations were below the limit of 0.4g/Nm<sup>3</sup> set by the Department of Environment as per the Environment Quality Act, 1978 in Malaysia and the 0.3g/Nm<sup>3</sup> set by the Peraturan Menteri Negara Lingkungan Hidup No. 07 Tahun 2007 in Indonesia.

Palm Oil Mill	Average Dust Concentration (g/Nm <sup>3</sup> )
Jendarata Stack 5	0.272
Ulu Bernam Boiler 2 & 3	0.143
Ulu Basir Boiler 4	0.121
UIE Boiler 1, 2 & 3	0.116
Lada Boiler 1, 2 & 3	0.268

VORSEP Dust Collector System at Ulu Basir Mill and Jendarata Mill

The VORSEP dust collector system was installed on our Biomass Reciprocating boiler at Ulu Basir Palm Oil Mill replacing the old conventional multi-cyclone dust collector system.

This unit was commissioned in the beginning of June 2015 whilst the unit at Jendarata Palm Oil Mill was commissioned in September 2017. These units were installed primarily to meet the DOE’s Environmental Quality Act (Clean Air Regulation) 2014 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 150mg/Nm<sup>3</sup>
- ii) The smoke should not exceed shade No. 1 on the Ringlemann chart and should be less than 20% opacity

Work is in progress to install and commission the VORSEP dust collector system in all of UP’s palm oil mills before the end of 2018 thereby introducing this noble technology in both the Jendarata, Ulu Basir, UIE and the new Ulu Bernam Optimill.

## Production and Level of Utilisation of Oil Palm Biomass Residues in UP in 2017

### (Dry Matter Basis-Malaysian Operations)

Biomass	Quantity Produced (MT)	Quantity Utilised (MT)	% Utilisation	Method of Utilisation
Trunks and fronds at replanting	189,618	189,618	100	Mulch
Pruned fronds	311,291	311,291	100	Mulch
Spent male flowers	29,932	29,932	100	Organic matter recycled on land
Fibre	63,701	63,701	100	Fuel & mulch in nursery
Shell	36,846	36,846	100	Fuel & mulch for polybag seedlings
POME	23,630	21,858	93	Biogas generation, nutrient source, field irrigation and base for organic fertiliser production
EFB	75,637	75,637	100	Mulch and Fuel
Total	730,655	728,883	-	-
Level of utilisation =99.8%				

In 2017, a total of 730,655MT of biomass residues were generated through the various field and mill activities of the Company's Malaysian operations. From these, a very high ratio of 99.8% of the total biomass generated, or 728,883MT were effectively utilised with most of the residues recycled as organic matter back to the fields, in the form of 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.

To further enhance biomass utilisation, plans are underway for the construction of another three units of Biomass Reciprocating Boilers at our UIE palm oil mill, and the Optimill which all will be fully operational before the end of the 2<sup>nd</sup> quarter 2018.

### (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	87,332	87,332	100	Mulch
Spent male flowers	8,397	8,397	100	Organic matter recycled on land
Fibre	21,665	21,665	100	Fuel & mulch in nursery
Shell	13,732	13,732	100	Fuel & mulch for polybag seedlings
POME	9,884	9,142	93	Biogas generation, nutrient source and field irrigation
EFB	26,247	26,247	100	Mulch and Fuel
Total	167,257	166,515	-	-
Level of utilisation =99.6%				

A total of 167,257 MT of biomass dry matter was generated from our Indonesian operations in 2017. Even though the quantum is lesser than what is generated in Malaysia, a very

high proportion of these biomass (166,515MT or 99.6%) was utilised through recycling in the field and as an energy source with all the added benefits to the environment.

## Fertilizer Equivalent and Monetary Value of Oil Palm Biomass Residues Recycled on Land in UP in 2017

### (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	189,618	2,370	796	3,050	1,454
Pruned fronds	Mulch	311,291	7,018	2,283	5,935	3,885
Spent male flowers	Organic Matter	29,932	963	638	1,771	919
EFB	Mulch	61,441	1,069	451	2,970	683
Digested POME	Biogas generation & Irrigation	21,858	760	481	1,195	874
Total (MT)		614,140	12,180	4,649	14,921	7,815
Monetary value (RM)			13,738,631	1,571,085	15,905,210	4,267,053
Total monetary value RM 35,481,979						

### (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	87,332	1,969	640	1,665	1,090
Spent male flowers	Organic Matter	8,397	270	179	497	258
EFB	Mulch	26,208	456	192	1,267	291
Digested POME	Biogas generation & Irrigation	9,142	318	201	500	366
Total (MT)		131,079	3,013	1,212	3,929	2,005
Monetary value (RM)			4,293,407	550,809	4,756,841	1,238,639
Total monetary value RM 10,839,696						

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 oil yield.

In 2017, the total organic matter recycled on land in UP amounted to 614,140 MT of dry matter, which is equivalent to 356,201 MT of carbon. At this rate, we are returning more than 17 MT of organic matter or over 10 MT 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 39,565 MT of NPKMg fertiliser which in itself has a monetary worth of RM35.48 million at the prevailing 2017 fertiliser prices.

For our Indonesian operations, a total of 131,079 MT of biomass was recycled onto plantations land. This is equivalent to adding 76,026 MT of organic carbon to enrich the land which on a hectare basis is akin to returning around 16 MT of organic matter or above 9 MT of organic carbon to the land. The nutrient content of these recycled biomass is equivalent to 10,159 MT of inorganic NPKMg fertilisers, which will have a value equivalent to RM10.84 million.





*The state of the art 60tph Optimill site located at Ulu Bernam on the very grounds where United Plantations undertook its large scale cultivation of oil palms in 1926. In the background one can see the modern biogas plant. To the left one can observe the UniFuji Refinery currently under construction.*

#### New Palm Oil Mill project completed: The Ulu Bernam "Optimill"

During the course of 2017 the biggest engineering project undertaken in UP's 112 year history nearer to completion was the Optimill undergoing pre-commissioning on the 29th November 2017.

UP has again taken a giant leap forward in terms of encompassing and amalgamating the most modern equipment and technologies available in the industry and marrying this into a layout which today is a perfect example of what the circular economy can look like.

Changes in technology combined with the desire to drive efficiencies to higher levels has over the last 2 years resulted in UP realising its

strategy of reducing the total number of palm oil mills in Malaysia from 6 to 4 and at the same time maximising the generation of renewable energy.

With the completion of the new Optimill all of UP's 5 FFB processing centres (including the mill in Indonesia) are equipped with Biogas Plants thereby closing the loop and mitigating greenhouse gas emissions considerably.

In this connection it is interesting to note that UP has the oldest operating palm oil mill (Jendarata) as well as the newest palm oil mill (Ulu Bernam Optimill) within the Malaysian Palm Oil Industry today.



*CPO storage tanks.*



*The new Biomass Boiler power plant.*



*Housing complex at Ulu Bernam Estate Division 2 which is for employees associated with the new Optimill and UniFuji JV project.*



*The Ulu Basir water reservoir established to cater for the Optimill water requirements.*



*Discussion amongst the Engineers from United Plantations Bhd and Fuji at the UniFuji project worksite. In the centre one can see the Chief Executive Director, Dato' Carl Bek-Nielsen and the Managing Director of Fuji Oil Singapore, Mr. Teo Yong Wah.*

#### United Plantations and Fuji Oil Joint Venture

Based on a common goal of a long term partnership in which unique technology and first class palm oil quality is combined, UP and Fuji Oil agreed to establish a JV.

During 2018 this JV will materialise into a super modern and efficient refinery setup including solvent fractionation in the Ulu Bernam Area of Lower Perak for the production of value added palm fractions for the speciality fats and chocolate industry. The JV will be taking advantage of UP's high quality certified sustainable and traceable crude palm oil and renewable energy derived from the Biomass from the newly established neighbouring Optimill creating a "circular economy" and best practice within the industry.

The below is a summary of the main aspects of the UniFuji JV which was announced to the market on the 29<sup>th</sup> November 2017.

UP and Fuji Oil have agreed to further strengthen their business collaboration by building a factory, on UP's Ulu Bernam Estate, through the formed 50:50 Joint Venture Company UniFuji Sdn Bhd.

The state-of-the-art factory, at an estimated cost of RM160 million, will produce value added palm fractions based on UP's certified sustainable and traceable palm oil and Fuji's expertise on innovation, technical capabilities as well as its high quality food standards.

The construction is progressing well and it is expected that commissioning of the factory will take place in the 2nd quarter of 2018.

This Joint Venture will not have any effect on the share capital and shareholding structure of UP. In addition, the joint venture will not have any material effect on the net tangible asset of the Company in the current financial year ending 31 December 2017. This investment is expected to contribute positively to the earnings of the UP Group in the medium term.

Both UP and Fuji Oil have commented on the expanded business collaboration as follows:

"Fuji Oil is a very good match in terms of their Values and their Commitment on doing business with a long-term perspective.



*The monthly joint inspection of the UniFuji worksite. The vision amongst the officers is to build a modern and fully integrated refinery cum mill on UP's Up river estates.*

Combined with their technical capabilities and well-developed relations with many international customers, we are confident that this collaboration has got the right foundation for a successful future together." Said Dato' Carl Bek-Nielsen, the Chief Executive Director of UP.

UP is an ideal match for us based on their in-depth knowledge of the palm oil business and strong focus on sustainable agricultural production. I am confident that the combination of UP's certified sustainable and traceable palm oil combined with our technological capabilities, will create positive synergy effects for both parties going forward." Said President and Chief Executive Officer of Fuji Oil, Mr. Shimizu san.

Further information on Fuji Oil:

Fuji Oil Holdings Inc.

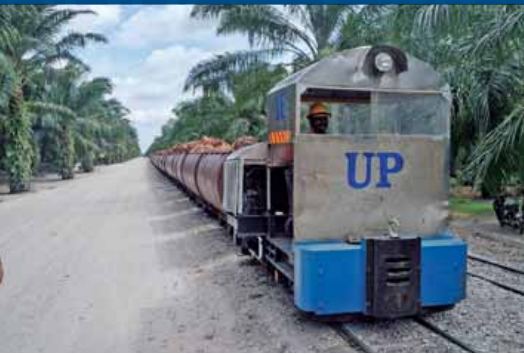
Fuji Oil, established in 1950, is a leading corporate group engaged in the development, production, and sale of food ingredients. Its business is centered around the three fields of oils and fats, confectionery and bakery ingredients, as well as soy protein and has business operations spread into twelve countries with 32 factories and offices globally. Fuji Oil is the largest oils & fats processor in Japan and has its headquarters in Osaka Japan. See also the Fuji Oil Group's website for further information: <http://www.fujioilholdings.com/en/>



*Work site safety is of highest priority on all United Plantations worksites.*



*UniFuji refinery construction site with the Optimill in the background.*



Our unique rail transportation system enables swift crop transport to the palm oil mill.

### UP's Light Rail Transport System

During 2017, additional railway tracks were laid to facilitate crop transportation bringing the total network length to 580km. UP's narrow gauge railway network is a unique system of transporting fresh fruit bunches from the field to the mill. An in-house fabricated 90hp diesel locomotive can efficiently transport up to 180 MT of crop in a single trip, compared to an average 6 tonne payload capacity when using trucks or tractor-trailers. This superior efficiency offers substantial fossil fuel savings and mitigation of GHG emissions.

It has been estimated that an estate could ferry an annual crop of 180,000 MT fresh fruit bunches a year with a fleet of 6 locomotives. In contrast, to transport the same crop would require a total of 30,000 truckloads which often require multiple handlings resulting in greater bruising of the crop. On the other hand, sending crop through the light rail transport system enabled minimal handling of the fruit bunches which ensures high CPO quality with low FFA content.

In our quest for continuous improvement, a major refurbishment programme was undertaken from 2005 to replace the existing timber sleepers with steel

sleepers which are more durable and also alleviates the pressure to source for tropical timber sleepers.

*'And what a good story it was, as I discovered later during my tours of the plantations, witnessing the sheer scale, distance, capacity and efficiency of the rail systems and the skill and expertise in the engineering workshops. Watching the FFB being cut, transported and processed in just a few hours, ensuring maximum yield of top quality palm oil was impressive. The processing mills burning their own waste, so providing power and steam to run the mill itself - in what is nearly a perpetual motion system is amazing.'*

Norman Drake

The above was an extract of a letter from Mr. Norman Drake, a railway enthusiast from Perth, western Australia who visited United Plantations a few times in order to see our railway system in operation. The result of his visits was a special article on United Plantations railway system featured in the special 215th issue of the "Narrow Gauge magazine", published by the Narrow-Gauge Railway Society (NGRS)

Norman Drake will again be reviewing our light rail transport system in May 2018.



Railway tracks maintenance in progress next to a field that is being replanted.

## 10. Water Impacts

Relates to UP's measure to preserve and protect waterways and manage the use of water throughout our organisation

### Introduction

Plants obtain almost all the water they require from the soil. Of the enormous quantities taken up, only a fraction of one percent is retained in the plant tissues. Yet this minute fraction is all important for growth. Water is required for a number of physiological functions, including manufacture of carbohydrates, maintenance of hydration of the protoplast and for the transport of nutrients.

Today's water management challenges and tomorrow's differ greatly from those of the last decades. A growing number of poor people and continued environmental degradation imply that the finite natural resources available to humans and ecosystems will not support business as usual for much longer. Thinking differently of water is a requirement if we want to reverse these trends and achieve our triple goal of food security, poverty reduction and conserving environmental integrity.

Farming feeds the world, but it depends on vital resources such as water. Irrigation for agriculture consumes 2/3 of the world's fresh water but non-irrigated agriculture today produces about 60% of the world's food.

Experts have concluded that agricultural output will need to double by 2050 to feed a growing world. We will, in other words, not only need to produce more from each hectare of land but also get more from each drop of water.

United Plantations 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,



*The Bernam river facilitates water management during high and low tides.*

gone to great length to construct an extensive system of watergates, 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 United Plantations' planted areas under oil palms or coconuts are irrigated. All our areas are under rain-fed agriculture, thus making use of whatever water 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 our crops ranges from 120-150 mm per month. To meet these 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 2015. Weirs have been constructed across the collection 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.



*An effective drip irrigation system at the Jendarata nursery.*



Monitoring water quality.

The Biodiversity team has developed a “Hydrology map” and identified a number of permanent sites for sampling water quality. Using 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 have mistakenly 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 residents to be frugal on its usage. Old water pipes, water tanks, faulty taps are being replaced from time to time to arrest leakages.

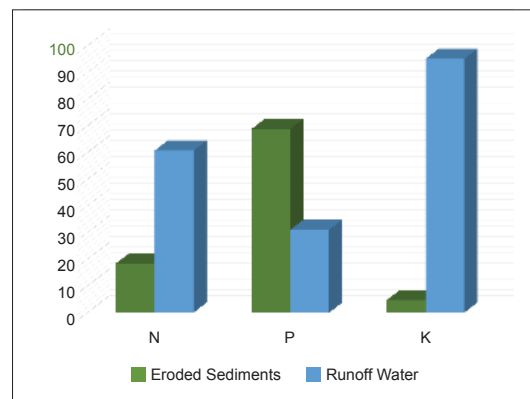
We aim to reduce the consumption in the coming years with more awareness programmes.

### Erosion Monitoring Plots

To better understand the dynamics of soil, water and nutrient loss that can occur on 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 measures can be developed to minimise the depletion of these vital natural resources.



Soil erosion monitoring plots such as this are useful to demonstrate the percentage loss of the major nutrients in the eroded soil or runoff water fractions.

### Per Capita Domestic Water Consumption Per Day

	2017	2016	2015	2014
Malaysian operations (gallons)	58	61	80	81
Indonesian operations (gallons)*	66	NA	NA	NA

\*2014-2016 flowmeters were progressively installed in our Indonesian operations (Lada and Runtu Estates) as the housing complex was being expanded.

**11. Peat Development**

The Group has committed to no new development on peatland regardless of depth since 2010. However, the management plans are in place and being implemented on existing plantations on peat

**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 (FeS<sub>2</sub>) 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. The weirs are made of wood, concrete or they can simply be sandbags. The concrete structures are either built on site or they are precast and placed into position.

To regulate the height of the water table, wooden planks are slotted into the desired level. Except for periodic flushing of acidic water during the rainy seasons, the blocks are maintained at the predetermined level at all times. 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 600-1,000m 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.

**Monitoring of meteorological parameters**

Weather stations have been setup 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.

**Effects of Moisture Stress**

Moisture stress causes reduction in cell division and cell elongation – two important growth processes. Its effect on oil palm and coconuts is summarized in the table given.



*Water tanks are supplied for harvesting rain water.*

**Rain Harvesting (GRI 303-3)**

As part of our effort to conserve water resources and minimise wastages 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**

Water consumption rate in our Indonesian operation has improved over the recent years whereas the mill water consumption rate in our Malaysian operations has been showing a slight increase over the recent years. This is due to poor source water quality and mills raising steam for affiliated facilities such as our refinery in addition to processing the mill's crop. Water use efficiency is being monitored and is expected to improve from 2018 onwards with the phasing out of the older mill and the commissioning of the new Optimill.

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

	2017	2016	2015	2014
Malaysia	1.8	1.7	1.9	1.7
Indonesia	1.4	1.3	1.5	1.6

**Effects of Moisture Stress on Oil Palm and Coconut**

Oil Palm	i	Accumulation of unopened spears
	ii	Reduced leaf production
	iii	Drying and snapping of leaves
	iv	Abortion of inflorescence
	v	Affects sex differentiation favouring male flower production
	vi	Reduced oil/bunch yield
Coconuts	i	Premature nut fall
	ii	Reduced nut yield
	iii	Reduced nut size
	iv	Reduced copra/nut



**12. Pesticides and Chemical Usage**

(GRI 301-1)

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 affordable 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 farmers and about 32 - 44 times lower compared to Soybean farmers.

**Establishing Beneficial Flowering Plants**

To date a total of 251,926 beneficial broadleaf flowering plants have been planted in our plantations encouraging parasite 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. However due to replanting activities in most of the Malaysian estates as well as the loss of beneficial plants to floods, beneficial plants numbers have been setback for some years although numbers are expected to continue to rise in the coming years.

	Malaysia	Indonesia
<i>Cassia cobanensis</i>	- 41,004 planted	- 14,712 planted
<i>Tunera subulata/ulmifolia</i>	- 83,167 planted	- 73,326 planted
<i>Antignon leptosus</i>	- 24,842 planted	- 95 planted
<i>Carambola sp</i>	- 3,275 planted	-
<i>Others</i>	- 2,871 planted	- 8,634 planted
<b>Total</b>	<b>155,159 planted</b>	<b>96,767 planted</b>

**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.

United Plantations Palm Oil (Malaysian Operations*)				Soybean**	Sunflower**	Rapeseed**
	2017	2016	2015			
Pesticides / Herbicides (kg per MT oil)	0.66	0.83	0.91	29	28	3.73

\*Includes palm oil + palm kernel oil (UP, 2015-2017 - Malaysian operations)  
 \*\* Data from FAO, 1996 - Pesticide data for rapeseed updated in 2010

United Plantations Palm Oil (Indonesian Operations*)				Soybean**	Sunflower**	Rapeseed**
	2017	2016	2015			
Pesticides / Herbicides (kg per MT oil)	0.14	0.18	0.17	29	28	3.73

\*Includes palm oil + palm kernel oil (UP, 2015-2017 - Indonesian operations: Lada and Runtu Estates)  
 \*\* Data from FAO, 1996 - Pesticide data for rapeseed updated in 2010



*Rhinoceros beetle grubs thriving on rotting organic matter.*

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 encouraged 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.



*A rhinoceros beetle adult attracted to an oil palm seedling*

Overpopulation of rats, beetles and various kinds of weeds can have profound negative impact on production and 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*).



*Pheromone trap are used to control Rhinoceros beetles in the fields.*

The following pages provide an overview of some of the methods to reduce pesticide usage as well as ongoing research within our biodiversity team and UPRD:

5-Step Integrated Pest Management Programme approach taken to contain and/or control Bagworm outbreak thus limiting the usage of monocrotophos:

1) *Integrated Pest Management*

*E.g. planting of beneficial plants to enhance the natural parasitic and predator activities against bagworm. To date more than 251,926 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 using monocrotophos.*

### 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 reduces soil loss.

### Use of Safer Class 3 & 4 pesticides wherever possible

In line with the RSPO's continuous improvements initiative the Company's Group Sustainability Committee monitors and reviews the pesticide usage, exploring avenues to reduce overall pesticide usage as well as evaluating alternative safer pesticides. In this context, UP has since February 2008 been working towards minimizing the usage of Paraquat, which has been documented in the annual RSPO Surveillance Audits.

In May 2010, Management took the decision to voluntarily phase out the usage of Paraquat, a goal which was realized with effect from October 2010.



Palms defoliated by bagworm outbreak.

### Monocrotophos

Monocrotophos is a class 1B insecticide which is permitted in Malaysia for trunk injection of palms affected by bagworm. Foliar application usage was banned by the Malaysian Government in 1996. Efforts to source and evaluate alternatives for the Class 1B insecticide, monocrotophos, have been ongoing since 2006 and are still being pursued together with several multinational chemical companies, amongst others Bayer and BASF (Germany), Syngenta (Switzerland), Cheminova (Denmark) and Sumitomo (Japan) and Rainbow Agrosiences (China).

So far, we have not been able to meet our internal goals of phasing out monocrotophos as the agrochemical industry has not been able to identify an effective and suitable alternative that is able to effectively control bagworm. This conclusion is shared by all the leading multinational chemical producers present in Malaysia.

Monocrotophos will therefore still be used in very limited quantities for trunk injection only and solely as a last resort in the company's 5-Step Integrated Pest Management Programme when all other attempts to contain or control a bagworm outbreak have been exhausted. This is in full compliance with



Trunk injection of insecticides as a last resort.



A widely planted beneficial plant – *Antigonon leptopus*.



*Sycanus* preying on a leaf eating caterpillar.

all relevant rules and regulations in Malaysia as well as with the RSPO Principles & Criteria.

In 2017, monocrotophos usage was similar to the previous year due to a residual bagworm outbreak on some estates. Prior to this outbreak the Company has successfully reduced its use of monocrotophos as an active ingredient basis by approximately 53% since 2006. Much progress and efforts are being made to continue this positive trend. In this connection, the collaboration with the Centre of Agriculture Biosciences International (CABI) in relation to management of bagworm in oil palm through an integrated ecological approach with biological control agents such as predators and other entomopathogens was formalized in 2011 for a two-year study.

The objective of the study is to develop an effective strategy to manage bagworm pests through the mass breeding and release of biological control agents such as predators complemented with the application of entomopathogens in affected fields. Arising from this collaboration, efforts to rear and propagate a number of predator species in a purpose-built insectary since 2012 are continuing.

The eventual benefit of this endeavour may lead to sustainable bagworm control requiring minimal intervention with chemical insecticides.

Bagworm is an endemic pest in Lower Perak and the Federal Government has gazetted this as a “Dangerous Pest” on 15 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 concerted 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 below, 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.

Direct fossil fuel energy consumption as well as pesticide usage was reduced in 2017 as a result of continued focus on minimizing usage by expanding IPM practices combined with a higher crop production level compared with 2016.

**Agrochemical and Energy Inputs in the Cultivation of Oil Palm and Other Oilseed Crops**  
(GRI 301-2, GRI 302-1)

Input	Per tonne oil basis					
	Oil Palm*			Soybean**	Sunflower**	Rapeseed**
	2017	2016	2015			
Fertiliser nutrients						
Nitrogen (N-kg)	14	20	19	315	96	99
Phosphate (P2O5-kg)	11	9	8	77	72	42
Potash (K2O-kg)	35	47	42	NA	NA	NA
Magnesium (MgO-kg)	6	7	7	NA	NA	NA
Pesticides/Herbicides (kg)	0.66	0.83	0.91	29	28	3.73
Energy (GJ)	0.67	0.97	0.72	2.90	0.20	0.70

\* includes palm oil + palm kernel oil (UP, 2015-2017- Malaysian Operations)

\*\* Data from FAO,1996 - Pesticide data for rapeseed updated in 2010.

### 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 incidence of pest outbreaks which was less prevalent in 2017 than the previous year.

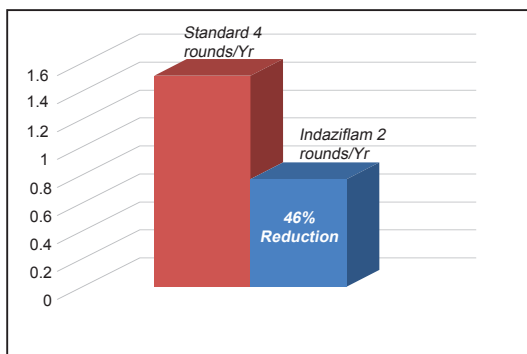
	2017	2016	2015	2014	2013
Malaysia	50	4,250	77	318	223
Indonesia	0	0	0	0.3	0

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

### 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 United Plantations 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



Significant reduction of herbicide usage in mature fields with the use of Indaziflam herbicide compared to the standard herbicide combination.

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 accredited auditors of the RSPO every year.

### 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. As can be seen in table below, 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.

Direct fossil fuel energy consumption went down in 2017 as a result of the improved crop level compared with 2016.

	2017	2016	2015	2014
Malaysia	2.51	2.46	3.30	3.41
Indonesia	0.78	0.86	0.91	2.09

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



Rats eat both palm fruits and male flowers as indicated above. Barn owls are the best partners to oil palm growers due to their ability to adapt well in oil palm plantations, significantly reducing rat population and 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*), paddy 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 and threaten the oil palm plantings within a short time, given the right conditions.

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 predated on rats, resulting in major reduction of rodent damage. It is also one of the most widely distributed birds in the world.

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 rats 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.

Year	2017	2016	2015	2014	2013
Total Boxes	2,393	2,284	2,116	2,032	1,905
Total Area Under Owl (Ha)	31,308	31,040	29,278	27,654	27,017
Box to land ratio in Scheme	13.08	13.59	13.87	13.61	14.18
% Occupancy in Scheme	52.57	47.00	51.15	46.60	71.81
Total Planted Area (Ha)	34,808	36,496	36,111	36,111	35,813
Box to land ratio over Total Planted Area	14.55	15.98	17.07	17.77	18.80
Rodenticide ai/planted Ha (kg/Ha)	0.0007	0.0012	0.000178	0.000412	0.000260



Using leopard cats (*Prionailurus bengalensis*) as biological pest control of rats in UP's Kalimantan estates. Shown here are trapping, tagging with radio collar and predating on a rat in the fields.

### Leopard cats

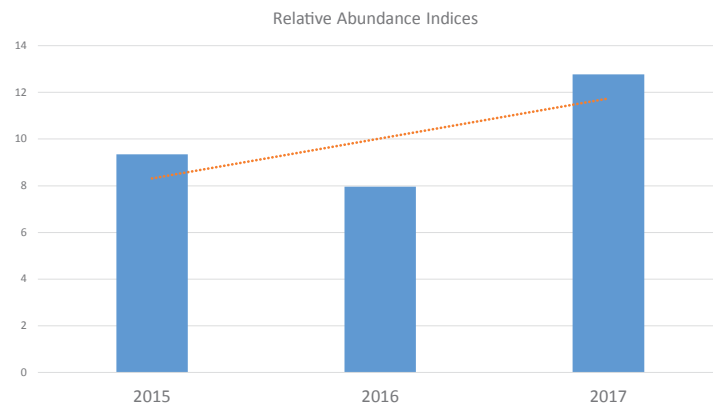
Since its formation in 2011, the BioD in UP/PTSSS has recorded a surprising number of leopard cats, *Prionailurus bengalensis*, in the estates. The species is common throughout Southeast Asia in undisturbed as well as altered habitats. They are common in some oil palm estates; however, little is understood 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).

To date, nine individual leopard cats have been collared and continuously tracked for 23 months, during which we collected a total of 1,500 GPS locations. These are used for estimating the respective cats' home-ranges and dispersal patterns.

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.



Relative abundance is the percent composition of an organism of a particular kind relative to the total number of organisms in the area. The trendline shows the cat abundance increasing in the past three years which indicate that leopard cats adapt well within PT SSS' oil palm plantation habitat.

Conversion to Energy Saving T5 Fluorescent Lamps

As part of our efforts to improve energy efficiency and to reduce wastages, there is an on-going exercise to replace the existing T8 fluorescent lamps with the newer T5 lamps.

Some advantages of the T5 tubes are:

- A 25% gain in luminous efficacy vis a vis T8 lamps
- Light output that is closer to natural light spectrum which is beneficial to human health
- Less heat emitted during operation, with potential saving in air conditioning costs
- Minimal (5%) degradation in lumen output over the life of the lamp as opposed to 20% degradation for the T8 lamps
- Does not require replacing existing fixtures

To date 99% of the T8 lights at the Unitata refinery and another 60% of the lights in several estates which numbered in excess of 4,000 lights have been converted to T5 lighting, resulting in an energy saving of 92.5 kW.

Going forward the Company is also actively exploring other energy efficient measures.

Recycling of pesticide containers and scheduled wastes (GRI 306-2, GRI 306-4)

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.

Triple rinsed plastic pesticide containers (MT)

	2017	2016	2015	2014	2013
UPB	25	27	310	326	141
PTSSS	1.9	0.5	0.4	0.5	No data

Spent lubricants (lit)

	2017	2016	2015	2014	2013
UPB	38,441	47,987	41,592	49,740	61,935
PTSSS	5,775	3,585	3,230	4,160	2,844

Used batteries (pieces)

	2017	2016	2015	2014	2013
UPB	263	284	176	258	263
PTSSS	9	47	11	31	6

Spent fuel filters (pieces)

	2017	2016	2015	2014	2013
UPB	3,732	4,736	3,029	3,522	3,777
PTSSS	508	358	187	253	No data

There is no deemed hazardous waste under the terms of the Basel Convention Annex I, II, III, and VIII, that were transported, imported, exported, or treated.



Temporary schedule waste storage regularly being audited by external auditors and local authorities in PT SSS.



## Community

Our business provides livelihood to families, small businesses and organisations 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.

### 13. Community Welfare

Our commitment to promoting socio-economic policies and progress in the 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.

Through respect and engagement with the local communities, important and continued integration being a key factor for the plantations' future success.

#### Social Commitments

Our Company's commitment towards providing and improving social amenities remains very much a hallmark within our Group. Continuous improvements were made during 2017 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

Supporting the surrounding communities in the form of investments in infrastructure projects, participation in cultural and sports events as well as religious ceremonies are important avenues

to build up a sense of togetherness between the company and neighbouring communities in Indonesia.

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.

#### Contributions to Society and the Local Community

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 age of 5 to 12 years from within and outside the plantations.

#### 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.

Regular inspections of the employees' housing are made by the Health Care Team to ensure that sanitation, health and drainage standards are upheld according to the Company's policies. In addition we also organize visits by our medical staff to the neighbouring villages for the benefit of the local communities. Medical services are open to our rural neighbours who in the past lacked access to basic healthcare and immunisation programmes.



Kindergarten children during their break-time, PT SSS.

**Landscape Approach**

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.

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

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 ensure 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.

Since 2014, LINKS has worked on social research and mapping, information dissemination, conflict mediation and training of FPIC related issues for the local communities, UP’s employees and the local government in preparation for our Group’s new Plasma development plans. Of key importance has been the collaboration between UP and the local communities, especially the ex-landowners or tenants and their testators as well as the various stakeholders from the villages in the designated area.

Our collaboration with Copenhagen Zoo which was officially introduced in 2010 continues to develop very satisfactorily with notable initiatives and positive developments having made in 2017. The objective of this cooperation is to better manage the conservation areas by preserving and conserving species of flora and fauna as well as their habitat and entire ecosystem including the surrounding communities.

We are continuously improving our community engagement approach throughout the UP Group which is now evolving into a more tailored and targeted engagement sessions with our community and the following provides an overview of the efforts involved in community engagement.

Landscape Initiatives by United Plantations Berhad as the table below:

Country	Region	Stake	Landscape approach
Malaysia	The Lagoon (Kingham-Cooper) Tree Species Reserve at Pantai Remis (UIE)	Tropical jungle trees of Malaysia.	The Lagoon (Kingham-Cooper) Tree Species Reserve, the Main Office Parks, the Sg Anak Macang Riparian Reserve and the Bek-Nielsen Sanctuary were established in collaboration with PENAWAR HUTAN/James Kingham and community. Most of the focus for additional trees planted was carried out along the length of the Sg Macang Riparian zone (southern river and boundary of UIE). All saplings and seeds were sourced in collaboration with PENAWAR HUTAN/James Kingham) who have been the main provider of rare and endangered species such as the ‘Dipterocarpaceae Family’ and the locally named Meranti species, valued for its timber hardwood. To date, some 16,000 trees have been planted, covering a wide range of 265 species from 60 family groups, thus providing a good basis for biodiversity (with the objective of 70% as Food Chain species which attract birds and small mammals, and 30% as tall forest species) which have become threatened due to their valuable timber/hardwood use, and thereby achieving a good balance of the tree species established across the years.

Country	Region	Stake	Landscape approach
			<p>We aim to continue enriching and intensifying the number of trees in UIE/UP, with a wider range of species in the years ahead and to create a unique collection of trees for seed supply and future establishment into further suitable estate reserves.</p> <p>We wish to acknowledge our collaboration with Malaysia's "Tree Guru" (Mr James Kingham and his community) who has provided us with much generous time, saplings, seeds and advice over the years for direction and the way forward.</p>
	Lower Perak, Malaysia	Endemic outbreak of bagworm/ Usage of chemicals under WHO Class 1A and 1B pesticides or Stockholm and Rotterdam Convention	<p>We facilitate aerial reconnaissance to neighboring growers to detect bagworm outbreaks in the vicinity to avoid its spread. United Plantations also provides her airstrips for aerial application of biological treatment in the form <i>Bacillus thuringiensis</i>. This is collaboration between MPOA, MPOB and oil palm growers in Lower Perak.</p> <p>We are working with stakeholders (chemical manufacturers) to determine suitable and effective alternatives for safe and effective bagworm treatment.</p>
Indonesia	Glady's Conservation at Pangkalan Bun	Lowland forest	PTSSS-United Plantations in collaboration with the community at Sungai Biru agreed to conserve this rich lowland forest comprising of 57 hectares called Glady's Conservation, which is adjacent to our Company's conservation belt. It is being constantly monitored and safeguarded by PTSSS-United Plantations.
	Pangkalan Durin Conservation at Pangkalan Bun	Freshwater swamp	PTSSS-United Plantations in collaboration with the community and government authorities successfully convinced the community to preserve this rich freshwater swamp from being developed. The Company compensated the community for this stretch of freshwater swamp. The community now benefits water supply especially during the droughts.
	Benaning Community Conservation Forest at Kumai, Pangkalan Bun	Lowland forest	PTSSS-United Plantations in collaboration with the community, LINKS and FODEC consultants at Benaning, Kumai, agreed to conserve this rich lowland forest comprising of 11 hectares called Hutan Konservasi Benaning from development by the community. This area is adjacent to our Company's conservation area and it is being monitored and safeguarded by the local community and PTSSS-United Plantations. The community stands to benefit clean groundwater by the presence of this lowland forest.
Malaysia and Indonesia	Surrounding communities	Outbreak of fire	PTSSS-United Plantations in collaboration with the community conducts training in fire prevention and combat. The Company also assists in combating fire in the immediate adjacent villages along with the community.

**14. Free Prior Informed Consent**

(GRI 413-1, GRI 413-2)

Our commitment in Indonesia to the principles of Free, Prior and Informed Consent and to adhere to these principles in all our negotiations and interactions with stakeholders

**FPIC and Lingkar Komunitas Sawit (LINKS)**

In order to fulfil one of the key requirements of the HCV/ HCS studies in relation to the area identified for plasma development, UP has cooperated with LINKS since September 2014 and is fully committed to RSPO New Planting Procedures for Oil Palm.

LINKS is an independent NGO providing social consulting services with the aim of supporting multi-stakeholder efforts in achieving economic and social justice in the palm oil sector of Indonesia.

LINKS completed their consulting services with PTSSS in September 2017 and has done a very good job assisting UP in complying with a proper FPIC process and necessary planning for the Plasma development plans in Kumai.

**Engagement, Stakeholder Identification and FPIC Training**

Since 2014, LINKS has worked on social research and mapping, information dissemination, conflict mediation and training of FPIC related issues for the local communities, UP’s employees and the local government in preparation for our Group’s new Plasma development plans.

Of key importance has been the collaboration between UP and the local communities, especially

the ex-landowners or tenants and their testators as well as the various stakeholders from the villages in the designated area.

**The land tenure study and mapping**

The land tenure study, including the mapping of the land, provided important information about the history of the Communities’ land tenure. According to the findings of the land tenure study there were 332 family groups of the ex-land owners or tenants and their testators, who used to be the holders of the land of ±2,500 Ha in Kumai Estate.

The land tenure and mapping study revealed information on overlapping claims and individual land owners not willing to participate in the plasma development plans. These areas together with the identified conservation areas have been set aside from the total identified concession of area, leaving approximately 500Ha available for new Plasma development.

The below diagram indicates the various steps to the FPIC process which ultimately will enable the potential establishment of the Plasma plantations. The FPIC report had been finalised in September 2017.

The discussion of which lots to be distributed to ex-land owners or tenants and their testators as well as local communities is being conducted based on land tenure study findings and have been concluded in September 2017. The above approach have paved the way for a structured plasma process enabling further areas to be developed for the benefit of the local community as described under the plasma development section on page 146.

**Various steps to the FPIC process**



Going forward it is important for all of the stakeholders involved to comprehend that the whole HCS study including the process of FPIC does not end with the signing of the Plasma Agreement.

The monitoring and evaluation of progress is important and will be carried out routinely in order to identify issues and find solutions together thereby maintaining a good relationship and a successful Plasma collaboration project.

Sustainability development and forest protection can be achieved by effectively implementing the processes summarized in the below diagram. HCV, HCS assessments (HCS Converged Approach) and FPIC processes must be integrated together with the other information specified above in order to develop appropriate development options.

The diagram below indicates the many important processes and inputs required in order to make an effective land use plan for concession areas.

Balancing the effects of land conversion to oil palm on global climate issues with potential local/regional socio-economic benefits are extremely challenging, given the vastly differing spatial and temporal scales involved and the different metrics used to measure these impacts. This is only possible by using a comprehensive approach to land development decisions that integrates relevant social, economic and

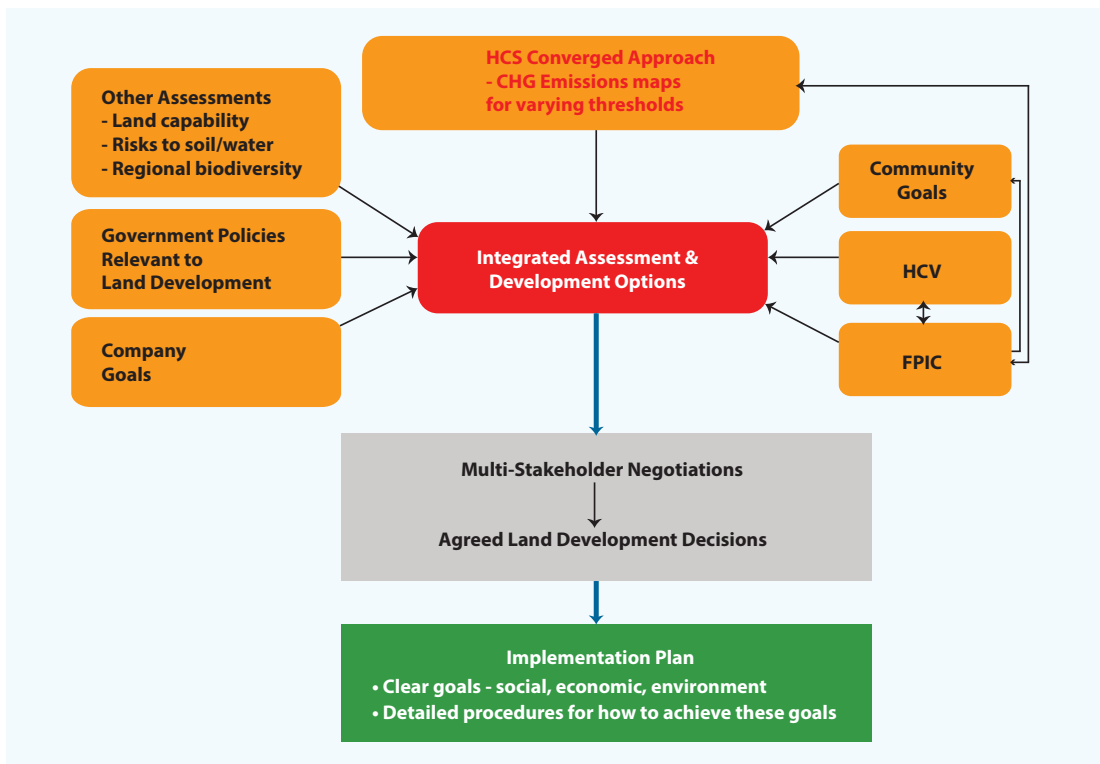
environmental inputs via multi-stakeholders negotiations.

Making the HCV, HCS and FPIC approach a requirement for certification under the RSPO NEXT and as part of purchasing policies of large companies, is a good move to prevent and minimize deforestation in specific concessions and areas. We subscribe to the above in our new oil palm plantings and aim to fully comply in our sourcing of crop from third parties in the not too distant future.

However, it should be acknowledged that unless government support and local people and communities can see their own economic interest and historic entitlements better met through forests set aside and protected for the long term rather than the short term gain, it will be difficult to prevent deforestation no matter how good intentions companies may have.

Operations with significant actual and potential negative impacts on local communities. (GRI 413-2)

We conduct annually the Environmental Impacts Assessment (EIA) and Social Impacts Assessment (SIA) and the positive impacts are further replicated and enhanced. The negative impacts such as unpleasant odour from the effluent pond are mitigated by various action plans such as installation of aeration devices and the Biogas Plant. The rehabilitation of riparian is in progress to mitigate water pollution.





Discussion in progress on allocation and distribution of Plasma lots.



Roadwork repairs towards PT Medco to assist local communities.



Free program "Posyandu" for pre and post natal care.



Hari Raya celebration with the local community –Desa Medang Sari.



Scholarships to local students who excelled.

**15. Grievance Resolution**

Our obligation to a mutually agreed and documented system to deal with complaints and grievances, which is implemented and accepted by all parties

Land disputes can be based on many different variables and reasons. Some cases are genuine and can be due to historical reasons, bad heritage, misunderstanding and miscommunication, cases of wrongful compensation amounts and frivolous claims. It is however extremely important that land disputes are taken seriously and are well documented in order to ensure transparency and evidence in connection with various ongoing cases.

**Land Disputes in Indonesia**

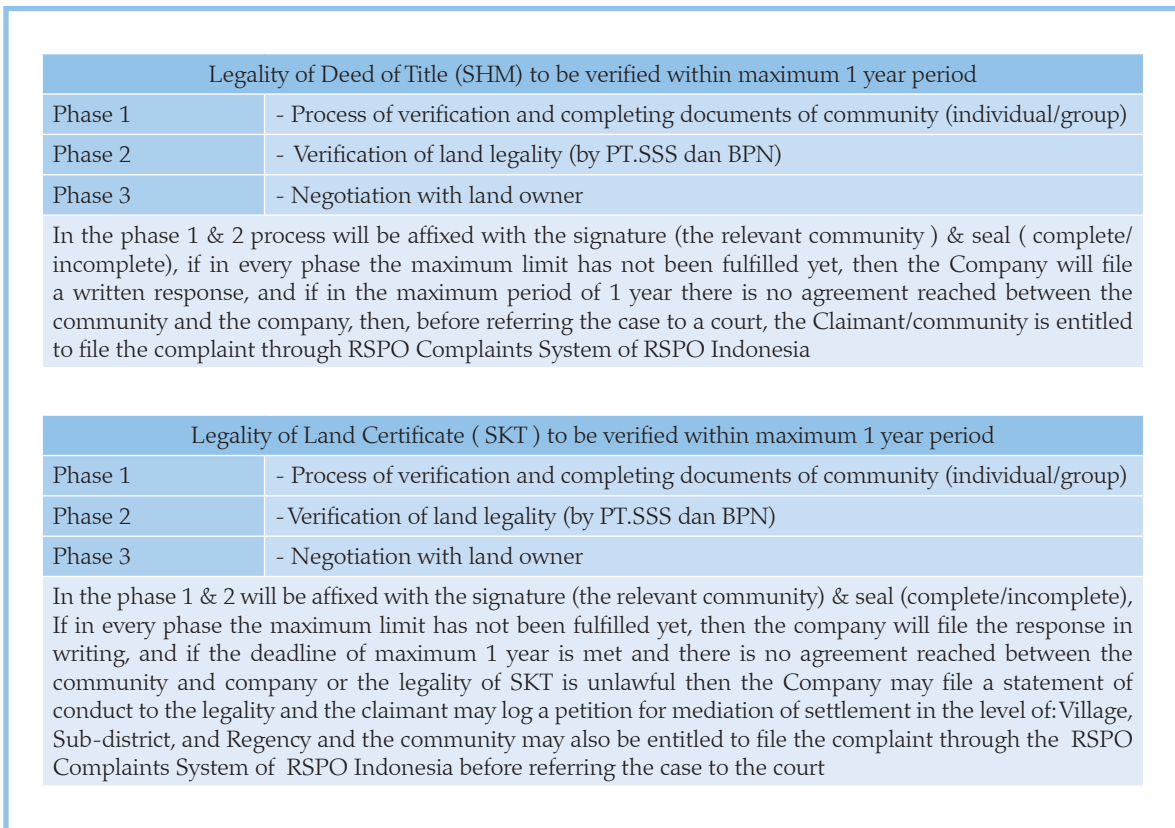
In Indonesia land disputes are inevitable and part of managing plantations in the country. To minimize land issues, important free, prior and informed consent sessions with stakeholders are conducted as a vital part of sustainable plantation development.

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. Please see below the flow chart.

**Standard Operating Procedure for Land Dispute Settlement as per Free Prior & Informed Consent (FPIC) - RSPO Principles**

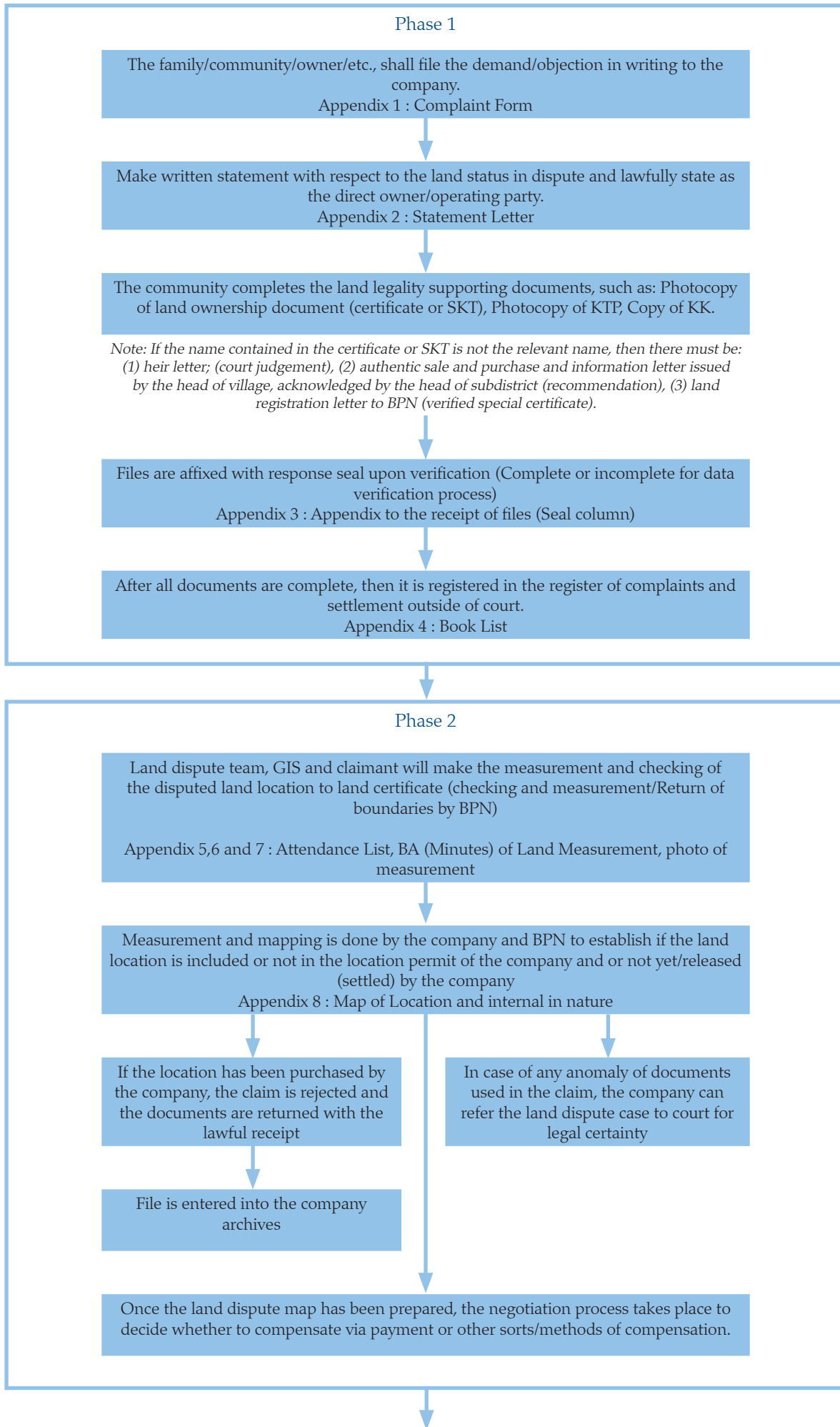
*(This is a translated version from Bahasa Indonesia, in the event there is conflict of interpretation the Bahasa Indonesia text should prevail.)*

**PT. Surya Sawit Sejati (PT SSS)**

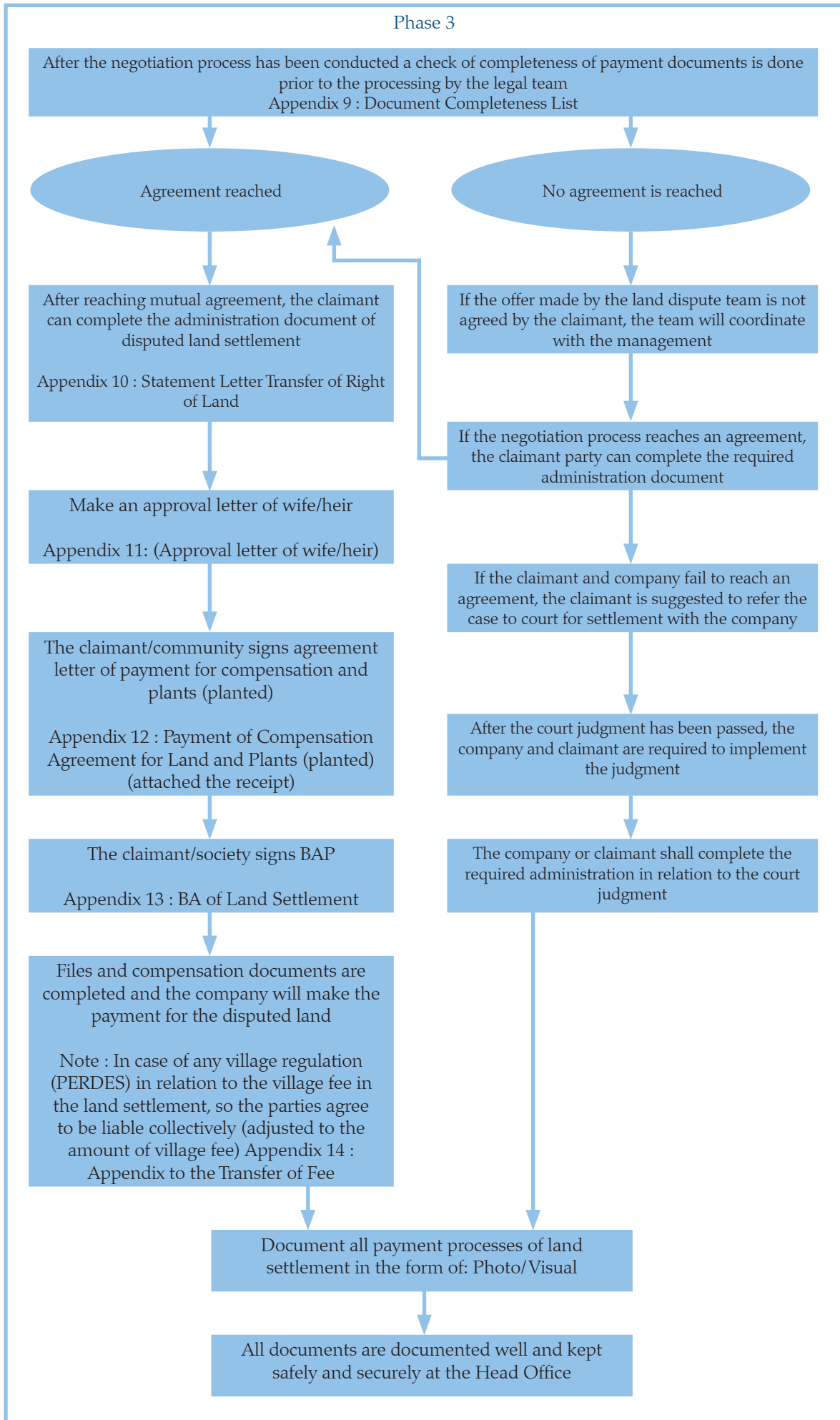




Three Phases of The Settlement Process



Settlement Process



Summary of Disputed, Resolved and Settled Cases from 2014 to 2017 (PT SSS)

Year	Resolved/Settled Cases	Estate	Disputed area (Ha)
2014	15	Lada Estate	202.55
2015	26	Lada Estate	264.21
2016	16	Lada Estate	18.14
2016	2	Runtu Estate	606.50
2016	4	Arut/Kumai Estate	17.05
2017	15	Lada Estate	65.78
Total	78		1174.23

No	Date Claim Submitted	Cert/SKT	Name of Claimants	Blk/Flds	Hectarage		Nature/Status of Dispute Status of Docs & Facts	Progress To date
					Docs	Claimant's Demand		
1	18-Mar-13	Cert	Purnomo	8	0.75	0.65	Planted by PT. SSS Agreed for compensation	Awaiting for BPN to survey the area to ascertain if the location is within Izin PT. SSS
2	15-Sep-14	Cert	Jaka Suherman	55	2 Certs	4	Agreed for Plasma Documents incomplete	Resolved. They have agreed to join plasma and relocated to Arut Estate (Desa Sumber Agung). Administration of Documentation are in progress.
3	25-Jul-16	Cert	Christianto Hutabarat	2	0.58	0.1	Planted by PT. SSS Agreed for compensation	Awaiting for BPN to survey the area to ascertain if the location is within Izin PT. SSS

- Cases pending for more than 1 years
- Cases pending for less than 1 year



Courtesy visit by the Lower Perak Police contingent led by the OCPD Tuan P/ACP Mohd Marzukhi bin Mohd Mokhtar.

**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 Procedure for Stakeholder Issues**

Under our RSPO framework, we are obligated to deal with issues openly. RSPO Principle 1 states the need for a commitment to transparency. RSPO Principle 6.3 further states that there is a mutually agreed and documented system for dealing with complaints and grievances, which is implemented and accepted by all parties. This procedure is given to ensure 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 United Plantations Berhad, 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, Indigenous People, Local Communities, Smallholders, Independent FFB Suppliers, Other Suppliers, Local and National NGOs.

**Internal Stakeholders**

All employees of United Plantations Berhad and their respective Trade Unions.

**Procedure for Handling External Stakeholders' Issues** (GRI 102-53)

The Company Secretary of United Plantations Berhad will be responsible for the handling of all enquires and grievances against the Company. The stakeholder may lodge their enquiries/grievances to respective Estate Manager or Head of Department or direct 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

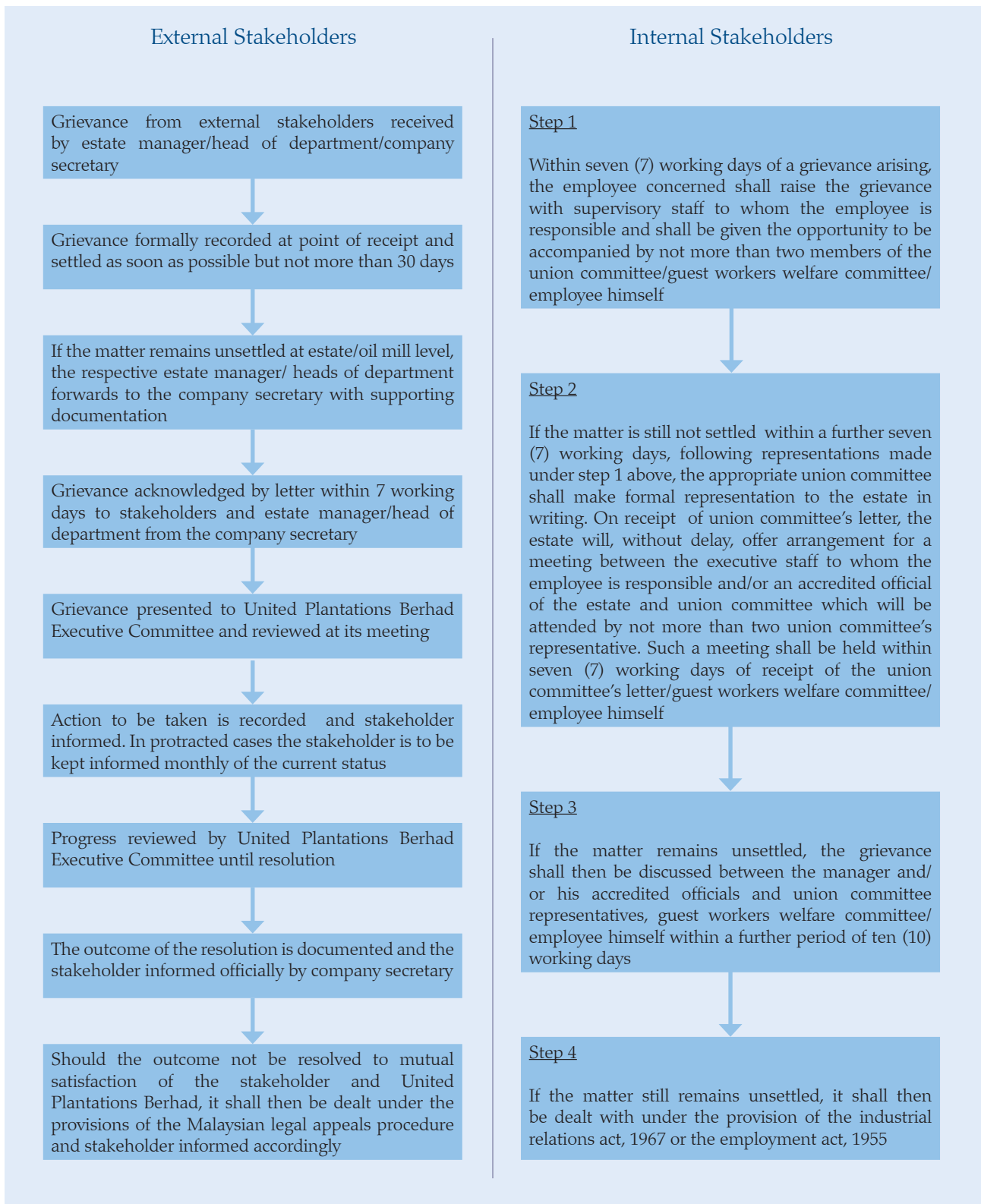


*Discussion during FPIC process with the local community.*



*Annual stakeholders meeting.*

Grievance Redressal Procedure for:





*Members of EXCOM inspecting harvested bunches together with the PT SSS Management during their visit to our Indonesian properties.*

## 16. Plasma Development (for Indonesia)

Our obligation in Indonesia, to help smallholders to develop their land including land preparation, for cultivation of oil palms to uplift the living standards of the local communities

### 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 Plasma Scheme which are designed to assist smallholders to become independent plantation growers.

Under the Plasma Scheme, UP helps smallholders to develop their land, including land preparation and 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, proceeds from the Plasma-areas minus development costs, 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 the environment.

In the early years of plantation development, before the oil palm trees reach maturity, the livelihood of smallholders is supported through employment by the Company. 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 buy their FFB at government determined rates.



*Associated Smallholders under PLASMA in Indonesia.*

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

### UP's commitment to Plasma Project

The Company's internal Plasma team has taken over the responsibility of the various plasma projects from our external plasma consultant Mr. Rudolf Heering who has retired in August 2015. Further progress has been made during 2017 with more than 500Ha of new plasma areas having been planted.

To date 1,285.13Ha of Plasma have been developed for 787 smallholders and another additional 500 hectares is expected to be provided and developed for the communities surrounding the Company's properties during 2018 to 2019.

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.

### 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.

The RSPO defines smallholders with less than 50 hectares of cultivated land and are mostly family-run, with some sustenance farming to support basic needs

As part of our Company's involvement, UP continuously engages with smallholders. The recent Smallholder's Field Day was held on 11th November 2017. We invited 80 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 59 smallholders or equivalent to 74% of the 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) 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 the close vicinity.

## 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.

Our Group ensures affected local communities understand that they have the right to say 'no' to operations planned on their lands before and during initial discussions, during the stage of information gathering and associated consultations, during negotiations, and up until an agreement with our management is signed and ratified by all relevant local peoples. Efforts will be made to consider population dynamics.



Field training conducted by President Director, Mr. Edward Daniels.



Fruit orchard.



Subsidies for rice, sugar, oil provided.

## Fruit Orchard

In Sg. Erong Estate, an orchard with local fruits trees is established for employees and residents' consumption.

The Company also plants coconut palms and fruit trees in the workers quarters for their benefits and residents are encouraged to plant vegetables in their backyard.

The Company facilitates the purchase of rice and sugar at wholesale prices for the workers. Cooking oil is supplied to the workers at a subsidised rate.

Monthly night markets are held in the respective estates where residents have access to fresh sundry goods at competitive prices.



Smallholder's field day organized together with MPOB at Jendarata Estate.



Vegetable gardens are encouraged at the backyard of our residence.



Well stocked sundry shop caters for employees.





*The Unitata Refinery Complex built in 1973.*

## Marketplace

(GRI 102-15, GRI 103-2)

Through investments in our people, technology and focus on our supply chain UP is committed to providing high quality certified sustainable and traceable products and services to customers worldwide. We aim for continuous improvement in our products and services and we 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.

### 17. Product Quality

Our Commitment to produce quality palm oil, palm kernels, coconuts, and their derived products to the total satisfaction of our worldwide valued customers

#### 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 the best 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. The diagrams shown on pages 158- 160 provide a clear overview of the many steps involved in ensuring palm oil products of high quality.

## 18. Certifications for Food Safety, Sustainability and Others (GRI 416-1, GRI 417-1)

Our Commitment towards food safety and sustainable and consistent high quality products through relevant international certifications

### Unitata Berhad – Quality Policy



Unitata is committed to quality in order to ensure our customer's satisfaction and continuous support. Unitata's reputation as a manufacturer of high quality oil palm products which are safe for human consumption, and meets the statutory and legal requirements of the customer.

As part of our commitment to uphold Unitata's historical standing as a quality producer, much emphasis is placed on quality assurance throughout the various stages in the refinery.

This is evidenced through our continuous investments in the latest process technology and high-end sophisticated analytical equipment providing accurate and timely controls to ensure customer satisfaction on high 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 to meet challenging and changing customer demands.

In order to cater for the growing demand of high quality products our refinery is 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 helps to ensure that quality assurance procedures are in place in order to comply with customer requirements.



*The Unitata quality and marketing team planning marketing strategies.*

Consumers today have an increased focus on safety and health as well as producing food through a transparent and traceable supply chain based on optimum processes that focuses on reducing processing aids, water and energy and the overall GHG footprint. Furthermore, it is important for consumers that social care for employees as well as protection of forests, including High Carbon Stock and High Conservation Value areas are associated with the food they choose to buy.

To keep up with increasing demands on traceability in the supply chain, we have obtained numerous local and international certifications as follows: ISO 9001, HACCP, Halal, Kosher, BRC, SEDEX, FDA, RSPO SCCS, GMP, MeSTI and MPCA. In September 2017, we have successfully obtained GMP+B2 Feed Certification Scheme for supply of acid oils into Europe for the feed industry. GMP+B2 provides assurance for feed safety in all links of the feed chain.

As a requirement for the above-mentioned certifications, Unitata is audited annually by the various certification bodies and by customers. In 2017, 8 certification audits and 7 customer audits have been conducted on Unitata. In addition, Unitata has audited and assessed key suppliers of raw materials, packaging, and ingredients. All raw materials, packaging materials and ingredients are certified as food grade.

Furthermore, we have established and validated our process controls to consistently minimize the risk of contaminants and meet acceptable food safety standards.

Unitata also stresses on the element of food defence as part of product security. This assures the protection of our products from malicious contamination, adulteration or theft.

All packed products are traceable to the raw materials, additives and packaging materials used via batch and code numbers on the labels. The labels meet the requirements of the Malaysian Food Act and the requirements of the respective export markets.

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 and Glycidyl Esters

3-MCPD and Glycidyl Esters are contaminants formed during the processing (refining) of edible oils and fats and has 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.)

With the combination of premium quality fruit bunches derived from our own plantation on UP combined with Unitata's processing know-how, we have been able to produce refined palm oil with levels of 3-MCPD and Glycidyl Esters which for over 20 years have been considerably

lower than the industry's norm, including the TDI levels mentioned above.

The decades' old sound practices have to-date built a scaffold for research to intensify focus on mitigating contaminants to near non-detection.

Whilst the majority of refineries as time passed opted for easier and cheaper refining methodologies, Unitata has firmly stood by her charter to place quality above all else and maintained her position as a leader within chemical refining of oils and fats.

This decision has resulted in Unitata being recognized as a leader in high quality refining which is attested by the surprising renaissance of chemical refining within the local industry.

The company's decision to invest in a modern laboratory, the Nair's Wing, was an integral part in securing the background knowledge for mitigation work. In June 2016 collaboration work was initiated by the American Oil Chemist Society in developing statistical measurements for a new analytical method called AOCS Cd30-15: Analysis of 2- and 3-MCPD Fatty Acid Esters and Glycidyl Fatty Acid Esters in Oil-Based Emulsions.

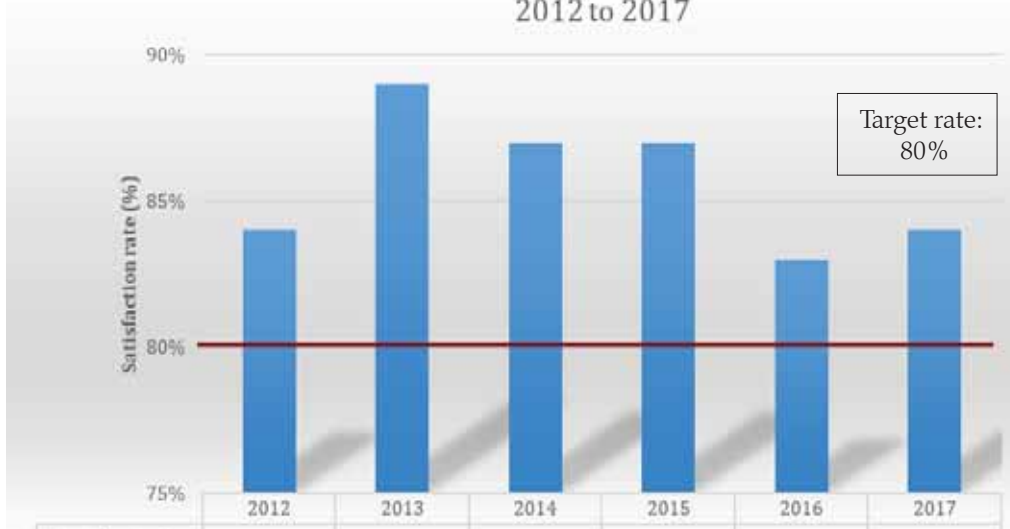
Unitata was one of the 17 internationally recognized laboratories, after a screening process, to participate in this collaboration.

The new method has been endorsed and included in the AOCS compendium of Official Methods in July 2107.

As part of establishing credence on the accuracy and precision over the analytical protocols the laboratory voluntarily and successfully participated in proficiency testing schemes such as the Food Analysis Performance Assessment Scheme (FAPAS) held in September 2017.

As a result, Unitata is able to meet stringent customer demand for oils used in the production of infant formulas. We are committed to further reduce the levels of these substances to the benefit of the customers globally.

UNITATA BHD: CUSTOMER SATISFACTION SURVEY  
2012 to 2017



**Customer Satisfaction**  
(GRI 102-43, GRI 102-44)

At Unitata, the annual customer satisfaction survey is used to measure how our finished products meet our customers’ 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 analyzed 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 also adopts an on-going communication method with the existing customer to keep them engaged with their products.

Regular communication with customers enables Unitata 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.

**Non-compliance with regulations concerning product labelling.**  
(GRI 417-2)

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

Necessary changes to the nutritional information on our product labelling was made based on FDA recommendations to ensure that future export of our product are in full compliance with the FDA regulations and there has since been no further issues in terms of any of our packed products entering the US.



*Small trucks ready to deliver FFB in the foreground while CPO tankers in the background are awaiting to collect CPO from our Lada Mill in Central Kalimantan.*

**19. Sustainability and Traceable Supply Chains**

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

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. This development combined with new labelling rules introduced in Europe effective December 2014 has increased demand further.

**Traceability at UP**

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.

The purpose is to ensure greater transparency in our supply chain. 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 back to the plantations.

The tables to the right indicate that crop processed in all our mills in Malaysia and Indonesia can be traced back to the plantations.

Today 100% of UP’s total production of CPO is traceable back to the plantations.

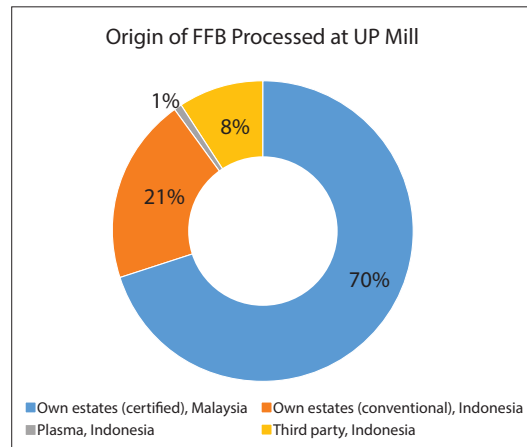
In Malaysia, all CPO used at our Unitata refinery can be traced back to the mills and plantations. CPO produced in Indonesia is sold to neighbouring refineries as we don’t have any downstream operations in the country.

For all UP PKs can be trace back to the plantations, however, as the palm kernels produced by UP is insufficient to cater for the needs of our refinery’s use of crude palm kernel oil, we currently source significant volumes which we are only able to trace back to the mills.

Going forward, we will be working with third party suppliers to increase the percentage of crude palm kernel oil 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.



(a) Upstream Operations (United Plantations)

List of Mills	Traceable to Plantations	
	Own Crop (FFB)	Outside Crop (FFB)
Jendarata	100%	Nil
Ulu Basir	100%	Nil
Ulu Bernam	100%	Nil
UIE	100%	Nil
PTSSS	100%	100%

(b) Downstream Operations (Unitata)

Refinery	Raw material	Traceable to Mill	Traceable to Plantations
Unitata	CPO	100%	100%

United Plantations is committed to moving towards full segregation and traceable supply chain models and is therefore slowly reducing mass balance and Greenpalm solutions.

All CPO produced in Malaysia is RSPO certified and segregated. In Indonesia, we have undergone RSPO certification for part of our plantations (with HGU certificates) and will be receiving RSPO certification for these areas in 2018.

Full certification and production of RSPO certified and segregated palm oil traceable to the mill and plantations is expected to be reached in 2020 for all our plantations areas in line with receiving the final land titles (HGU certificates) for all our Indonesian properties.



*Filling of certified sustainable and traceable specialty fats at Unitata.*

In this connection, we are increasing awareness by retraining and audits within all operational areas of our group. The results of these measures will be monitored and incorporated in our efforts for continuous improvements, and highlighted in our future reports.

### Supply Chain Certification

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.

The RSPO cooperates with the traceability service provider, UTZ, who through the RSPO Palm 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.

During November 2017, Unitata had their first verification audit by one of their key customers for supply of certified material. 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 the customer is 100% traceable throughout the supply chain.



*A well laid out warehouse for packed products at Unitata.*

**20. Evaluation of Supplier/Contractors' Sustainability Commitment**

(GRI 308-1, GRI 407-1, GRI 408-1, GRI 409-1, GRI 412-3, GRI 414-1)

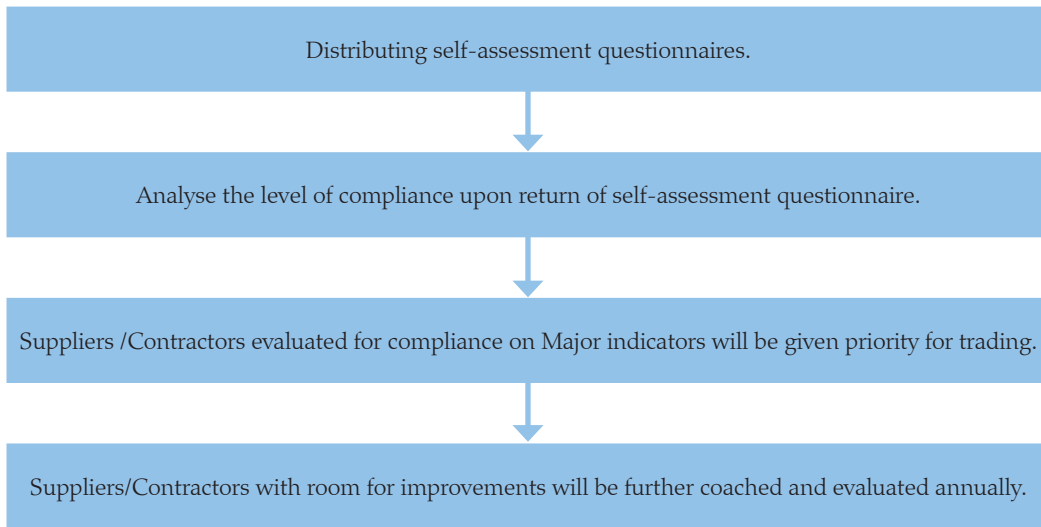
As an important step towards improving our sustainability within economic, environmental and social areas of our business, we have invited our suppliers and contractors to join us along the journey. Prior to any formal engagement with suppliers or contractors within our Group, a screening process by distributing a self-assessment questionnaire against social and environment aspect is carried out.

Our aim is to improve sustainability in our supply chain and ensure our suppliers and contractors collaborate with us in the compliance of company policy as well as legal requirements. The scope of self-assessment includes:

- a) Safety and Health (Major)
- b) No child labor (Major)

- c) Protect from any forms of discrimination (Major)
- d) Equal remuneration (Major)
- e) Fair employment contract as per legislation (Major)
- f) Fire safety plan (Minor)
- g) Business conduct (Major)
- h) Energy consumption (Minor)
- i) Zero burning (Major)
- j) No deforestation (Major)
- k) Reduction in GHG (Minor)
- l) No new development in HCV/HCS/Peat areas (Major)

The process to prioritize and assess our suppliers and contractors as flowchart below:



Suppliers and Contractors Assessed – United Plantations Bhd	
Number of key suppliers	43
Number of key suppliers assessed	36
Percentage of key suppliers assessed (%)	83.72
Number of key contractors	142
Number of key contractors assessed	121
Percentage of key contractors assessed (%)	85.21

\*Up to September 2017.

Please log into the link below to view the Assessment Questionnaire:  
[http://www.unitedplantations.com/sustainability/marketplace\\_assessment.asp](http://www.unitedplantations.com/sustainability/marketplace_assessment.asp)

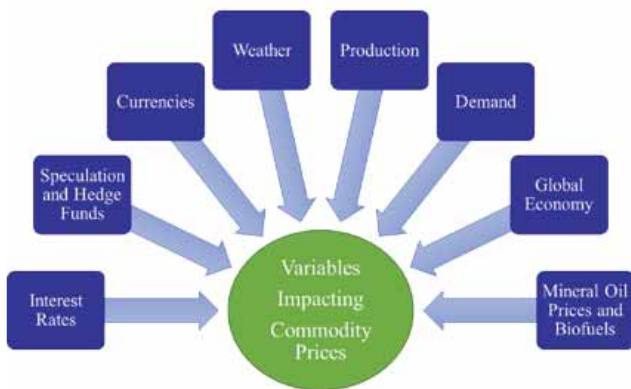


**21. Commodity Prices**

Prices of commodities are mainly the result of future expectations of Supply and Demand. Managing fluctuating commodity prices to protect shareholder value

Malaysia produces about a third of all palm oil in the world. Total palm oil production in Malaysia for 2017 was 19.98 million tons with around 15% of the palm oil being consumed directly in the country. Because Malaysia is so dependent on exports, palm oil prices in Malaysia are very much driven by international supply and demand. Palm oil is traded in three forms: the physical market, the futures market and the paper market. Palm oil prices in the physical, futures and paper market are different because of transparency, liquidity and ease of execution.

Numerous variables impact the prices of commodities as indicated below.



As this is an area of high risk, much focus is being directed towards safeguarding the exposure to our business in connection with fluctuations in Commodity Prices.

Risks are an inevitable part of Unitata’s business where price risk is considered to be of major significance.

In connection with price risk, both outright prices and market structure (inverse/carry) are risks which need to be monitored, mapped and most importantly, dealt with. The Group uses the the physical market, the futures market and the paper market to manage some of the transaction exposure. However, strict control and monitoring procedures include, amongst others, setting of trading limits approved by the Board and monitored closely by the Audit Committee through management reporting and both Internal and External Audits conducted frequently.

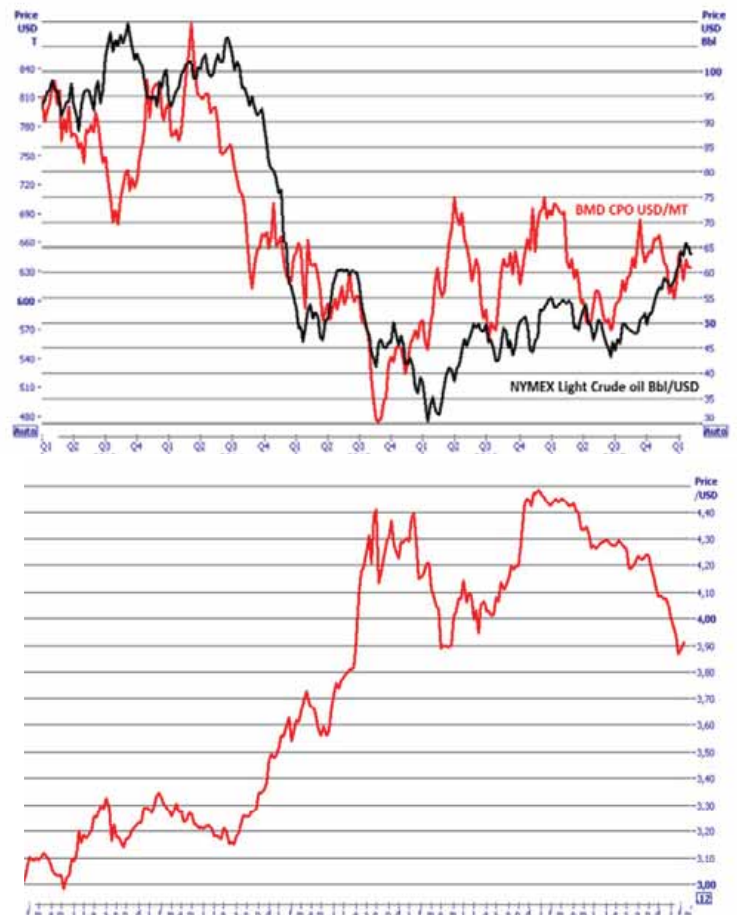
**22. Currency Fluctuation**

Managing adverse foreign exchange fluctuations to ensure longterm sustainability of our Company’s operations

For the export-oriented Refining Industry In which Unitata operates, a Weak Malaysian Ringgit against the USD has been an advantage as most of our costs are denominated in Ringgit whilst our sales prices are denominated in USD. More Ringgit per USD has therefore benefited Unitata when USD sales have taken place.

With margin pressure in the Malaysian Refining Industry due to the fierce competition specifically from Indonesia, it is extremely important that currency fluctuations are managed in order to safeguard profits and minimize risks. In the same manner as with commodities, the Group uses forward currency hedges to manage some of the transactions exposure.

Control and monitoring procedures are similar to what is done under commodities and is elaborated further under the section “Statement on Risk Management and Internal control” on page 184-186.

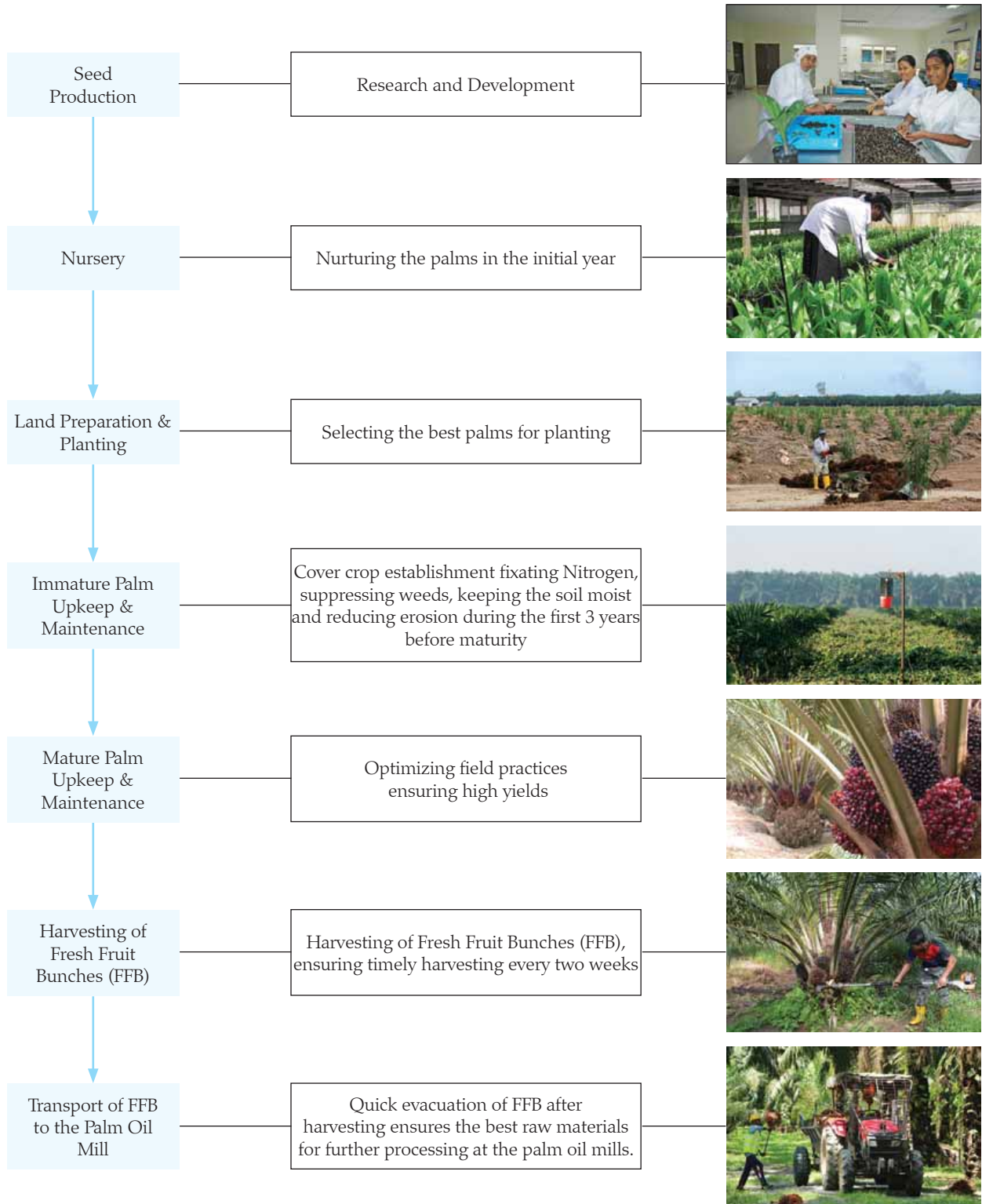




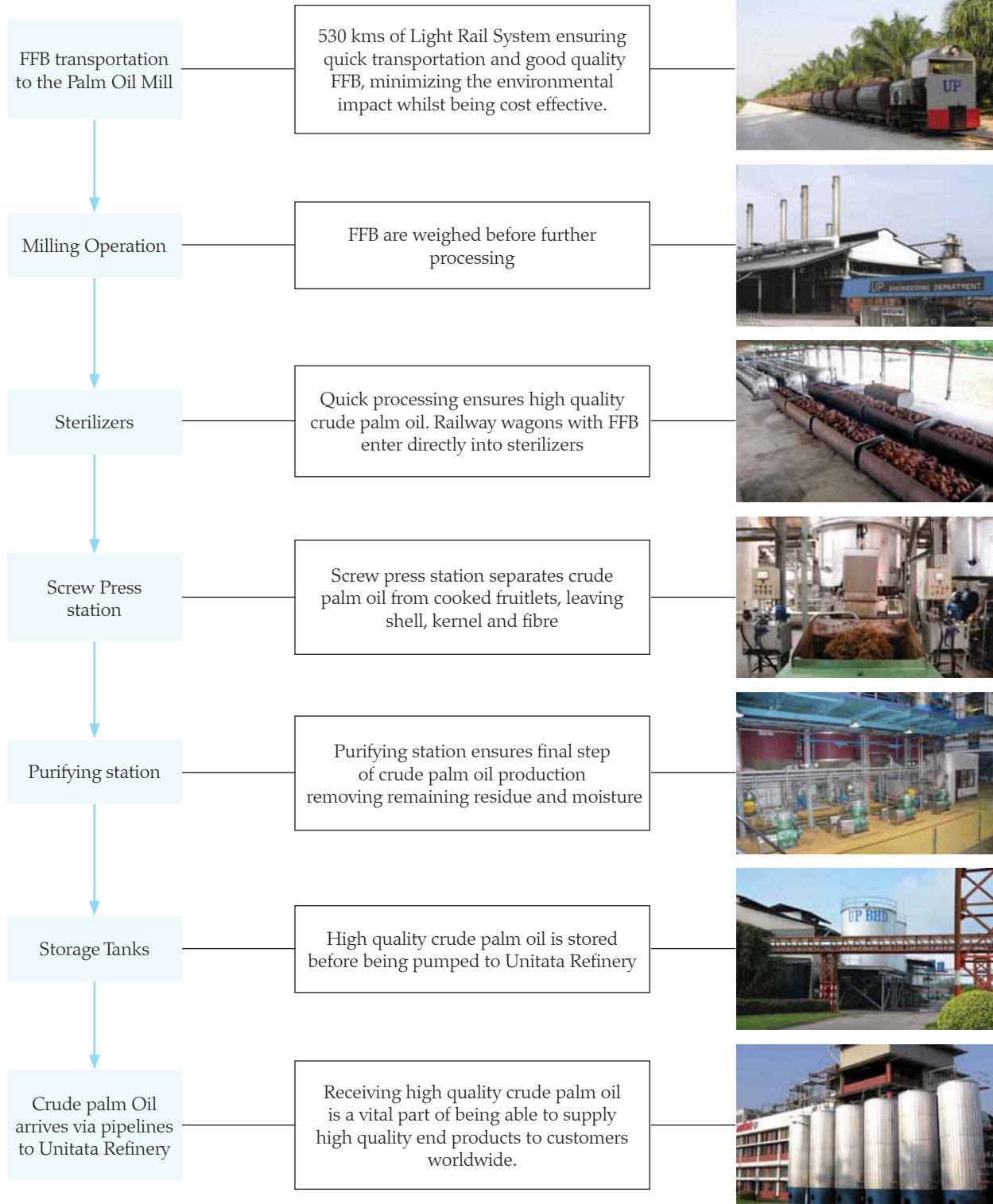
Our well maintained state-of-the-art Lada Palm Oil Mill.

# Commitment to quality

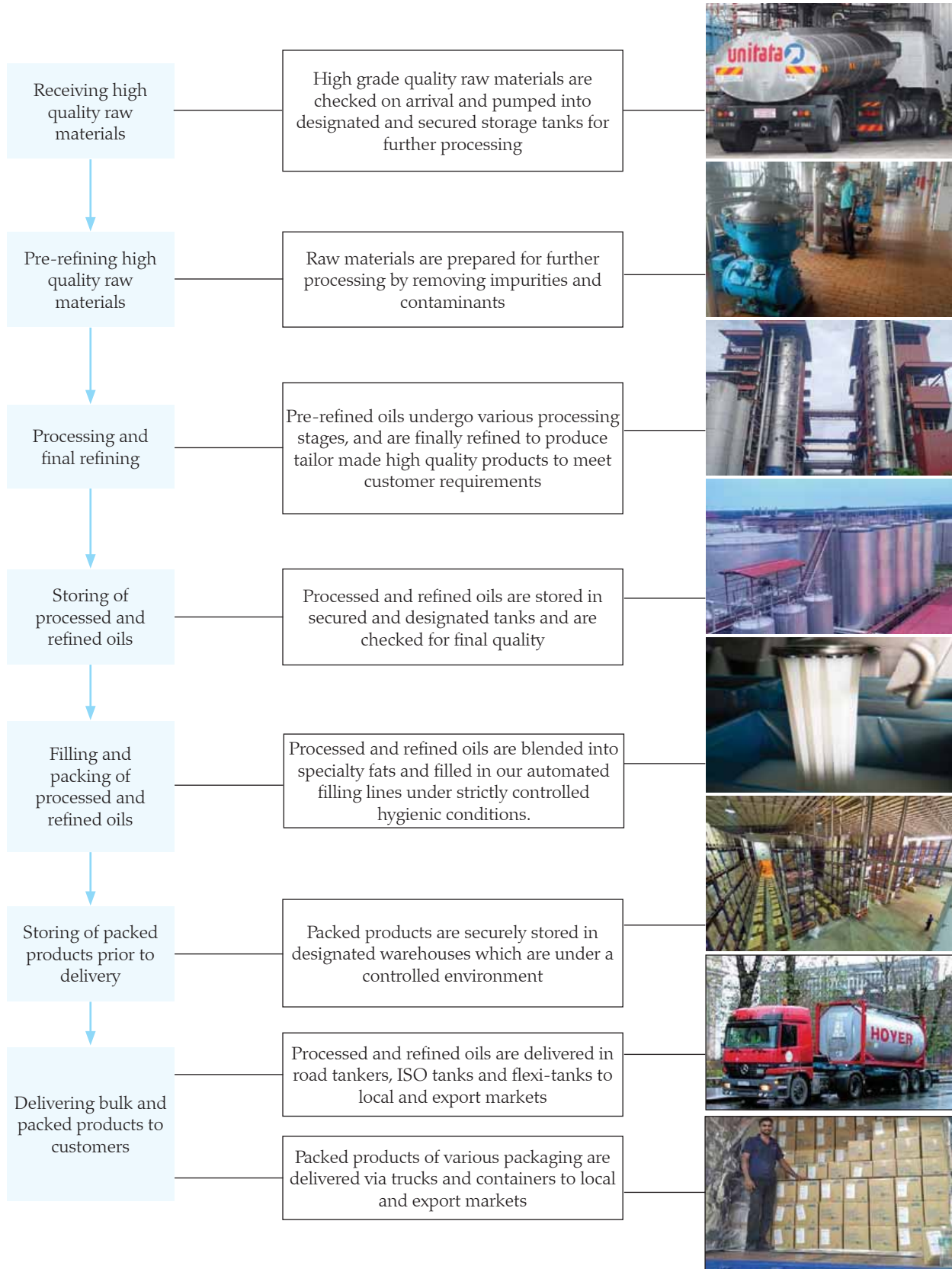
## Good agricultural practices



## Quick evacuation and processing at the palm oil mill



## Food safety and quality focus at the refinery



## Global Reporting Initiative (GRI) Content Index

(GRI 102-55)

United Plantations Berhad Annual Report 2017 has been prepared in accordance with the GRI Sustainability Reporting Standards (Core level disclosures). The following summary table details the location of specific disclosures throughout the report.

GRI Standards	Description	Reference Section	Page Number
<b>GRI 102: General Disclosures</b>			
<b>1. Organizational Profile</b>			
102-1	Name of the organization	Front Cover	ii
102-2	Activities, brands, products, and services	Report of the Directors	3,6
102-3	Location of headquarters	Corporate Information	4
102-4	Location of operations	Locations of Estates, Factories and Holdings Planted areas – 31st December 2017	last page (map)
102-5	Ownership and legal form	Corporate Information – Notes to the Financial Statement	208
102-6	Markets served	Geographical Segments – Notes to the Financial Statements	266
102-7	Scale of the organization	Notes to the Financial Statements	208
102-8	Information on employees and other workers	Employees	65
102-9	Supply chain	UP & RSPO Marketplace	26 34
102-10	Significant changes to the organization and its supply chain	There were no changes during the reporting period regarding size, structure, ownership or supply chain. However, changes in the senior management team are featured in Executive Committee and Senior Management.	5
102-11	Precautionary Principle or approach	Statement on Corporate Governance	172
102-12	External initiatives	UP & RSPO Environment	85
102-13	Membership of associations	UP & RSPO Environment In addition to the above, UP has memberships in Malaysian Palm Oil Association (“MPOA”), Palm Oil Refiners Association of Malaysia (“PORAM”)	85
<b>2. Strategy</b>			
102-14	Statement from senior decision-maker	CED’Message	12,14
102-15	Key impacts, risks, and opportunities	Engaging Our Stakeholders Materiality Employees Environment Community Marketplace	51 54 63 85 132 149
<b>3. Ethics and Integrity</b>			
102-16	Values, principles, standards, and norms of behaviour	Statement on Corporate Governance Employees (Whistle blower Policy)	63, 64
102-17	Mechanisms for advice and concerns about ethics	Employees (Whistle blower Policy)	63, 64

GRI Standards	Description	Reference Section	Page Number
GRI 102: General Disclosures (Contd.)			
4. Governance			
102-18	Governance structure	Corporate Governance Overview Statement Governance Structure	172 40
102-19	Delegating authority	Governance Structure	40
102-20	Executive-level responsibility for economic, environmental, and social topics	Governance Structure	40
102-21	Consulting stakeholders on economic, environmental, and social topics	Stakeholders Engagement	50
102-22	Composition of the highest governance body and its committees	Governance Structure	40
102-23	Chair of the highest governance body	Corporate Governance Overview Statement Chair of the highest governance body is the Chairman of the Board, who is independent and non-executive	172
102-24	Nominating and selecting the highest governance body	Nomination Committee – Corporate Governance Overview Statement	172
102-25	Conflicts of interest	Corporate Governance Overview Statement	172
102-26	Role of highest governance body in setting purpose, values, and strategy	Corporate Governance Overview Statement	172
102-27	Collective knowledge of highest governance body	Corporate Governance Overview Statement Governance Structure	172
102-28	Evaluating the highest governance body's performance	Corporate Governance Overview Statement Statement on Risk Management and Internal Control Audit Committee Report	172
102-29	Identifying and managing economic, environmental, and social impacts	Governance Structure	40
102-30	Effectiveness of risk management processes	Corporate Governance Overview Statement	172
102-31	Review of economic, environmental, and social topics	Corporate Governance Overview Statement Governance Structure	172 40
102-32	Highest governance body's role in sustainability reporting	Governance Structure	40
102-33	Communicating critical concerns	Governance Structure	40
102-34	Nature and total number of critical concerns	Governance Structure	40
102-35	Remuneration policies	Remuneration Committee - Statement on Corporate Governance	177
102-36	Process for determining remuneration	Remuneration Committee - Statement on Corporate Governance	177
102-37	Stakeholders' involvement in remuneration	Remuneration Committee - Statement on Corporate Governance	177
102-38	Annual total compensation ratio	Not Disclosed in this Report	-
102-39	Percentage increase in annual total compensation ratio	Not Disclosed in this Report	-

GRI Standards	Description	Reference Section	Page Number
<b>GRI 102: General Disclosures (Contd.)</b>			
<b>5. Stakeholder Engagement</b>			
102-40	List of stakeholder groups	Stakeholders Engagement	51, 55
102-41	Collective bargaining agreements	Employees	71
102-42	Identifying and selecting stakeholders	Stakeholders Engagement	51
102-43	Approach to stakeholder engagement	Stakeholders Engagement	51
102-44	Key topics and concerns raised	Stakeholders Engagement Employees Environment Community Marketplace	55
<b>6. Reporting Practice</b>			
102-45	Entities included in the consolidated financial statements	Financial Statements	193-283
102-46	Defining report content and topic Boundaries	About This Report Stakeholders Engagement Materiality	54
102-47	List of material topics	Materiality	54
102-48	Restatements of information	There is no restatement of information.	30
102-49	Changes in reporting	No significant changes	30
102-50	Reporting period	About This Report	30
102-51	Date of most recent report	Annual Report 2016	30
102-52	Reporting cycle	About This Report	30
102-53	Contact point for questions regarding the report	Procedure for Handling External Stakeholders Issues	143
102-54	Claims of reporting in accordance with the GRI Standards	Global Reporting Initiative Index	161
102-55	GRI content index	Global Reporting Initiative Index	161
102-56	External assurance	About This Report	30, 170-171
<b>GRI 103: Management Approach</b>			
103-1	Explanation of the material topic and its Boundary	Materiality	30,54
103-2	The management approach and its components	Corporate Governance Overview Statement Materiality Employees Environment Community Marketplace	172 54 63 85 132 149
103-3	Evaluation of the management approach	Materiality Employees Environment Community Marketplace	54 63 85 132 149
<b>GRI 201: Economic Performance</b>			
201-1	Direct economic value generated and distributed	Financial Statements and Notes to the Financial Statement	193-277
201-2	Financial implications and other risks and opportunities due to climate change	Not Disclosed in this Report	-
201-3	Defined benefit plan obligations and other retirement plans	Financial Statements	259
201-4	Financial assistance received from government	Not Disclosed in this Report	-



GRI Standards	Description	Reference Section	Page Number
<b>GRI 202: Market Presence</b>			
202-1	Ratios of standard entry level wage by gender compared to local minimum wage	Employees (Paying Fair wages and Employees Benefits)	70
202-2	Proportion of senior management hired from the local community	Employees Our policy is to hire employees with attitudes and skills enabling them to develop a long-term relationship with us, with no discrimination towards the employee's race, colour, religion, gender, national origin, ancestry, disability, marital status and sexual orientation.	65
<b>GRI 203: Indirect Economic Impacts</b>			
203-1	Infrastructure investments and services supported	Employees Community	63
203-2	Significant indirect economic impacts	Not effected yet	-
<b>GRI 204: Procurement Practices</b>			
204-1	Proportion of spending on local suppliers	We endeavour to support local suppliers in the countries we operate in, which is Malaysia and Indonesia.	-
<b>GRI 205: Anti-corruption</b>			
205-1	Operations assessed for risks related to corruption	Not effected yet	-
205-2	Communication and training about anti-corruption policies and procedures	Code of Ethics and Business Conduct	63
205-3	Confirmed incidents of corruption and actions taken	Not effected yet	-
<b>GRI 206: Anti-competitive Behaviour</b>			
206-1	Legal actions for anti-competitive behaviour, anti-trust, and monopoly practices	Not effected yet	-
<b>GRI 301: Materials</b>			
301-1	Materials used by weight or volume	Agrochemical and Energy Inputs in the Cultivation of Oil Palm and Other Oilseed Crops - Environment	124
301-2	Recycled input materials used	Production and Level of Utilisation of Oil Palm Biomass Residues - Environment	114
301-3	Reclaimed products and their packaging materials	Not effected yet	-
<b>GRI 302: Energy</b>			
302-1	Energy consumption within the organization	GHG emissions, discharges and waste management	110
302-2	Energy consumption outside of the organization	GHG emissions, discharges and waste management	110
302-3	Energy intensity	Emission reductions and Biogas plants	110
302-4	Reduction of energy consumption	GHG emissions, discharges and waste management	110
302-5	Reduction in energy requirements of products and services	Not effected yet	-
<b>GRI 303: Water</b>			
303-1	Water withdrawal by source	Not disclosed in this Report	-
303-2	Water sources significantly affected by withdrawal of water	Not disclosed in this Report	-
303-3	Water recycled and reused	Rain Harvesting	123

GRI Standards	Description	Reference Section	Page Number
<b>GRI 304: Biodiversity</b>			
304-1	Operational sites owned, leased, managed in, or adjacent to, protected areas and areas of high biodiversity value outside protected areas	Adjacent Protected & Conservation Areas - Environment	86
304-2	Significant impacts of activities, products, and services on biodiversity	Biodiversity & Conservation	86
304-3	Habitats protected or restored	Biodiversity & Conservation	86
304-4	IUCN Red List species and national conservation list species with habitats in areas affected by operations	Biodiversity & Conservation	90
<b>GRI 305: Emissions</b>			
305-1	Direct (Scope 1) GHG emissions	Life Cycle Assessment	110
305-2	Energy indirect (Scope 2) GHG emissions	Life Cycle Assessment	110
305-3	Other indirect (Scope 3) GHG emissions	Life Cycle Assessment	110
305-4	GHG emissions intensity	Life Cycle Assessment	110
305-5	Reduction of GHG emissions	Life Cycle Assessment, Emissions Reductions & Biogas Plant	110
305-6	Emissions of ozone-depleting substances (ODS)	Not applicable	-
305-7	Nitrogen oxides (NOX), sulphur oxides (SOX), and other significant air emissions	Isokinetic Monitoring of Gaseous Emissions from the Palm Oil Mills, VORSEP Dust Collector System	113
<b>GRI 306: Effluents and Waste</b>			
306-1	Water discharge by quality and destination	GHG emissions, discharges and waste management	110-113
306-2	Waste by type and disposal method	Recycling of Pesticide Containers and Scheduled Wastes - Environment	131
306-3	Significant spills	Not effected yet	-
306-4	Transport of hazardous waste	Recycling of Pesticide Containers and Scheduled Wastes - Environment	131
306-5	Water bodies affected by water discharges and/or runoff	Not effected yet	-
<b>GRI 307: Environmental Compliance</b>			
307-1	Non-compliance with environmental laws and regulations	None. LCA	110
<b>GRI 308: Supplier Environmental Assessment</b>			
308-1	New suppliers that were screened using environmental criteria	Evaluation of Suppliers/Contractors' Sustainability Commitment - Marketplace	155
308-2	Negative environmental impacts in the supply chain and actions taken	Not effected yet	-
<b>GRI 401: Employment</b>			
401-1	New employee hires and employee turnover	Employees – Group Employees 2012-2017. UP Group Employees	65
401-2	Benefits provided to full-time employees that are not provided to temporary or part-time employees	Human and Workers' Rights - Employees	65
401-3	Parental leave	Not effected yet	-
<b>GRI 402: Labor/Management Relations</b>			
402-1	Minimum notice periods regarding operational changes	Human and Workers' Rights - Employees	67

GRI Standards	Description	Reference Section	Page Number
<b>GRI 403: Occupational Health and Safety</b>			
403-1	Workers representation in formal joint management-worker health and safety committees	Freedom to Join Unions - Employees	71
403-2	Types of injury and rates of injury, occupational diseases, lost days, and absenteeism, and number of work-related fatalities	Fatal Accident & Lost Time Injury Frequency – Occupational Safety & Health – Employees	82
403-3	Workers with high incidence or high risk of diseases related to their occupation	Lost Time Injury Frequency Rate - Employees	82
403-4	Health and safety topics covered in formal agreements with trade unions	Occupational Safety & Health Policy - Employees	81
<b>GRI 404: Training and Education</b>			
404-1	Average hours of training per year per employee	Training and Development of Employees – Employees	80
404-2	Programs for upgrading employee skills and transition assistance programs	Training and Development of Employees – Employees	80
404-3	Percentage of employees receiving regular performance and career development reviews	Not effected yet	-
<b>GRI 405: Diversity and Equal Opportunity</b>			
405-1	Diversity of governance bodies and employees	Equal Treatment - Employees	64
405-2	Ratio of basic salary and remuneration of women to men	Equal Treatment - Employees Average Earning - Employees	64
<b>GRI 406: Non-discrimination</b>			
406-1	Incidents of discrimination and corrective actions taken	Equal Treatment - Employees	64
<b>GRI 407: Freedom of Association and Collective Bargaining</b>			
407-1	Operations and suppliers in which the right to freedom of association and collective bargaining may be at risk	Evaluation of Suppliers/Contractors' Sustainability Commitment - Marketplace	155
<b>GRI 408: Child Labor</b>			
408-1	Operations and suppliers at significant risk for incidents of child labor	Evaluation of Suppliers/Contractors' Sustainability Commitment - Marketplace	155
<b>GRI 409: Forced or Compulsory Labor</b>			
409-1	Operations and suppliers at significant risk for incidents of forced or compulsory labor	Evaluation of Suppliers/Contractors' Sustainability Commitment - Marketplace	155
<b>GRI 410: Security Practices</b>			
410-1	Security personnel trained in human rights policies or procedures	Training Hours - Employees	80
<b>GRI 411: Rights of Indigenous Peoples</b>			
411-1	Incidents of violations involving rights of indigenous peoples	Not effected yet	-
<b>GRI 412: Human Rights Assessment</b>			
412-1	Operations that have been subject to human rights reviews or impact assessments	FPIC - Community	136
412-2	Employee training on human rights policies or procedures	Training Hours - Employees	80
412-3	Significant investment agreements and contracts that include human rights clauses or that underwent human rights screening	Evaluation of suppliers/contractors sustainability commitments-marketplace	155

GRI Standards	Description	Reference Section	Page Number
GRI 413: Local Communities			
413-1	Operations with local community engagement, impact assessments, and development programs	FPIC, Land Dispute - Community	136
413-2	Operations with significant actual and potential negative impacts on local communities	FPIC - Community	136
GRI 414: Supplier Social Assessment			
414-1	New suppliers that were screened using social criteria	Evaluation of Suppliers/Contractors' Sustainability Commitment - Marketplace	155
414-2	Negative social impacts in the supply chain and actions taken	Not effected yet	-
GRI 415: Public Policy			
415-1	Political contributions	Not disclosed in this Report	-
GRI 416: Customer Health and Safety			
416-1	Assessment of the health and safety impacts of product and service categories	At Unitata, all products are significantly important and may give health and safety producing ingredients to food producers	150
416-2	Incidents of non-compliance concerning the health and safety impacts of products and services	Not effected yet	-
GRI 417: Marketing and Labelling			
417-1	Requirements for product and service information and labelling	Certification for Food Safety, Sustainability and Others - Marketplace	150
417-2	Incidents of non-compliance concerning product and service information and labelling	Certification for Food Safety, Sustainability and Others - Marketplace	152
417-3	Incidents of non-compliance concerning marketing communications	Not effected yet	-
GRI 418: Customer Privacy			
418-1	Substantiated complaints concerning breaches of customer privacy and losses of customer data	Personal Data Protection	63
GRI 419: Socioeconomic Compliance			
419-1	Non-compliance with laws and regulations in the social and economic area	Not effected yet	-

## 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 (ELA) and High Conservation Value Assessment (HCV).
Effluents	Water discharged from one source into separate body of water, such as mill process water.
Employees	Our Employees are our core assets and human capital management is considered an integral and vital part of our operations.
Environment	UP's commitment in constantly striving towards reducing variables that impact the environment negatively.
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.
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.
GreenPalm	Is a certificate trading system that allows manufacturers and retailers to purchase GreenPalm certificates from an RSPO certified palm oil growers to offset each tonne of palm oil and palm kernel oil they use. A book-and-claim supply chain system.
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.
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.
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.



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## Independent Limited Assurance Report

Relating to United Plantations Berhad's Annual Report for the year ended 31 December 2017.

### To the Directors of United Plantations Berhad

We, KPMG PLT, have been engaged by United Plantations Berhad ("United Plantations") and are responsible for providing a limited assurance conclusion in respect of the Selected Sustainability Information for the year ended 31 December 2017 to be included in the Annual Report 2017 ("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 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 Responsibilities

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, 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 2017:

- Total average earnings per worker per month;
- Lost time injury frequency rate;
- Fatal accident rate;
- Fertiliser equivalent and monetary value of oil palm biomass residues recycled on land;
- Production and level of utilisation of oil palm biomass residues;
- Domestic water consumption;
- Mill water consumption in processing fresh fruit bunches (FFB);
- Usage of herbicides and pesticides;
- Local and international certifications; and
- Roundtable on Sustainable Palm Oil ("RSPO") certifications.

### 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:

- 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;
- Visits to 5 operating sites<sup>1</sup>, selected on the basis of a risk analysis including the consideration of both quantitative and qualitative criteria; and

<sup>1</sup> Jendarata Estate, Jendarata Engineering Department, Ulu Bernam Estate, Ulu Bernam Engineering Department, Unitata.

- 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, which is founded on fundamental principles of integrity, objectivity, professional competence and due care, confidentiality and professional behavior.

KPMG PLT 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 2017, 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*

KPMG PLT  
Petaling Jaya  
24 February 2018