



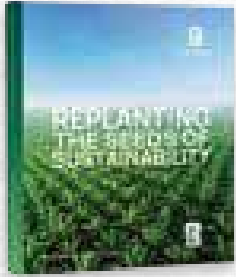
Plantations

REPLANTING THE SEEDS OF SUSTAINABILITY



A member of Boustead Group

SUSTAINABILITY REPORT 2020



REPLANTING THE SEEDS OF SUSTAINABILITY

As we strive to continuously evolve towards heightened sustainability standards, this year's theme demonstrates Boustead Plantation's commitment to expand our sustainability agenda by harnessing more efficient processes and harvesting greater value for our stakeholders. The DNA symbol embedded within our theme reflects our fundamental driving principle to create a greener future for the Group.



SCAN THE QR CODE BY FOLLOWING THESE SIMPLE STEPS



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Run it

Run the QR Code Reader app and point your camera at the QR Code



Access it

Get access to the online Sustainability Report

WHAT'S INSIDE



ABOUT OUR REPORT



OVERVIEW

- 4 About Us
- 5 Message from Chairman of the Sustainability Committee
- 6 Sustainability Key Milestones
- 8 2020 Highlights

ABOUT OUR REPORT

THE REPORT

Boustead Plantations Berhad's (BPB or the Company and its subsidiaries collectively referred to as the Group) Sustainability Report 2020 provides a comprehensive account of the Group's progress on the sustainability challenges and opportunities in the plantation sector during the year.

REPORT SCOPE AND BOUNDARY

This Report encapsulates our sustainability efforts for the reporting period 1 January 2020 to 31 December 2020. The scope of reporting remains unchanged from that of 2019, covering the Group's plantations and mills. In line with financial reporting standards, all monetary value is reported in Ringgit Malaysia (RM).



SUSTAINABILITY APPROACH

- 10 Sustainability Governance
- 11 Stakeholder Engagement
- 12 Determining Our Material Matters
- 13 Risk Management
- 14 Value Created - Sustainable Development Goals



ACHIEVING STRATEGIC GROWTH

- 18 Creating Business Opportunities
- 19 Research and Development and Yield Improvement
- 23 Sustainability Certification Scheme
- 24 Traceability and Supply Chain



SAFEGUARDING THE ENVIRONMENT

- 28 High Conservation Values Area and Biodiversity
- 29 Greenhouse Gas Emissions
- 32 Waste and Effluent Management



EMBRACING THE DIVERSITY OF PEOPLE

- 40 Occupational Safety and Health
- 44 Workforce Management, Social Welfare and Community Investment

ASSURANCE

This Report discusses matters raised by our stakeholders. Further to that, we intend to look into third-party assurance for our Sustainability Report in the near future.

However, the information related to our materiality issues, such as High Conservation Value, Greenhouse Gas and Occupational Safety and Health data, is reviewed by certification bodies recognised by the Roundtable on Sustainable Palm Oil (RSPO) and Malaysia Sustainable Palm Oil (MSPO). This provides verification and credibility to the information and data presented in this report.

REPORTING FRAMEWORK

The structure and content of this Report have been prepared in accordance with Bursa Malaysia Sustainability Reporting Guidelines and Bursa Malaysia Main Market Listing Requirements (Practice Note 9).



ABOUT OUR REPORT



ENHANCEMENTS THIS YEAR

In line with our commitment to deliver a concise, transparent and extensive report for the 2020 fiscal year, we have employed a reporting format that clearly depicts the quantitative and qualitative performance of our sustainability approach.



ACCESSIBILITY

Our 2020 Sustainability Report and reports from previous years are accessible via BPB website at www.bousteadplantations.com.my.



FORWARD - LOOKING STATEMENTS

This Report contains forward-looking statements described by the use of words such as "might", "will", "may", "believe", "predict", "estimate", "target", "aim", "anticipate", "expect", "project", "potential" and "forecast" amongst other similar terms.

Being a key player in the plantation industry, our business operations are very much subjected to the ever-changing dynamics of the sector. Hence, it is important to note actual results may vary from those represented in the forward-looking statements.



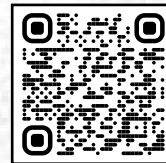
FEEDBACK CHANNEL

We are committed in maintaining continuous engagement with our stakeholders. We welcome feedback, comments and suggestions regarding BPB's 2020 Sustainability Report, which can be directed to:

Boustead Plantations Berhad
Sustainability and Safety Department
19th Floor, Menara Boustead
69 Jalan Raja Chulan
50200 Kuala Lumpur
03-21452121 ext 506
www.bousteadplantations.com.my



Scan to view or download our Annual Report 2020 here



ONLINE VERSION

Find more information online at www.bousteadplantations.com.my

- 4 **About Us**
- 5 **Message from Chairman of the Sustainability Committee**
- 6 **Sustainability Key Milestones**
- 8 **2020 Highlights**

OVERVIEW





ABOUT US

WHO WE ARE

As an established upstream oil palm plantation company, BPB has over 100 years of expertise in the industry coupled with more than 50 years of experience in oil palm plantations management. The Group is a subsidiary of Boustead Holdings Berhad. Our operations include the management of oil palm plantations across the country, the harvesting and sale of palm products, agronomic research as well as the provision of mill design and consultancy services. The Group is a proponent of sustainable agronomic practices.

WHAT IS OUR STORY

Our Sustainability Vision and Mission are the foundation of our operations.



Sustainability Vision

Achieving strategic growth by safeguarding the environment and embracing the diversity of people.



Sustainability Mission

To remain committed to our focus on research and development and implement breakthrough solutions at all levels and processes.

To achieve greater economies of scale and operational efficiencies by safeguarding the environment and fair treatment of all.



MESSAGE FROM CHAIRMAN OF THE SUSTAINABILITY COMMITTEE



Tan Sri Dato' Wira Aziah Ali
Chairman
Sustainability Committee

“Our theme this year sees us reasserting our pledge to creating a positive impact for the betterment of our collective future, be it in terms of environmental health, economic profitability or social responsibility.”



100%
MSPO
certification in
2020



Identified High Conservation Values Areas located within all estates

Sustainability is at the heart of Boustead Plantations Berhad. We are firmly committed to fostering sustainable business practices as we pursue growth. Aligned with the Group's renewed mission of Reinventing Boustead, our journey in adapting and strengthening our business sustainability is captured in this report themed “*Replanting The Seeds of Sustainability*”.

Our theme this year sees us reasserting our pledge to creating a positive impact for the betterment of our collective future, be it in terms of environmental health, economic profitability or social responsibility.

As one of the leading players in the plantation sector and amidst the heightened scrutiny over palm oil production globally, we acknowledge the importance of safeguarding the integrity of the Group's entire supply chain. We do this by paying special attention to ensuring that it only comprises palm oil that has been produced or sourced responsibly.

Our concerted sustainability efforts have proven fruitful, as we have attained 100% MSPO certification, while six of our RSPO certified palm oil mills are accredited with the Supply Chain Certification System.

In line with the Group's environmental conservation measures, during the period under review, we have assessed our plantation landbank and identified High Conservation Value Areas, comprising zones which support vital natural ecosystems.

Another important aspect of our sustainability journey is creating more with less. We do this by improving our resources efficiency and productivity through research and development.

Moving forward, the Group is committed to capitalising on new opportunities to strengthen our presence in the domestic and regional markets. It is also essential for us to cultivate high corporate governance as well as social and environmental responsibility standards.

Furthermore, we look to continue building a strong, skilled workforce by providing our employees from all employment levels with diverse opportunities to advance their careers professionally. At the same time, we ensure fair labour treatment for our workers at the estates and mills.

We will continue intensifying our sustainability efforts in tandem with maximising shareholder value.



SUSTAINABILITY KEY MILESTONES



2006



First publication of sustainability handbook: BEA Towards Sustainable Agriculture

2004



Founding member of RSPO

2010



First Social Impact Assessment & High Conservation Value Assessment conducted

2011



First business unit to be RSPO certified: Sungai Jernih Business Unit

2014



Listing of Boustead Plantations Berhad on the Main Board of Bursa Malaysia

2015



First installation of Biogas Plant at Telok Sengat Palm Oil Mill

RSPO certified: Nak Business Unit

MSP0 certified: Sungai Jernih Palm Oil Mill & Estate





2017



RSPO certified:
Trong Business Unit

2016



Sungai Jernih Palm Oil Mill awarded with Clean Air Award by Department of Environment Pahang

2018



RSPO & MSPO certified:
Segaria Business Unit

2019



MSPO certified: All RSPO certified business units

Second publication of sustainability handbook

Social Impact Assessment & High Conservation Value Assessment completed

RSPO & MSPO certified:
Segamaha Business Unit

2020



100% MSPO Certified

RSPO & MSPO Certified:
Telok Sengat Business Unit





2020 HIGHLIGHTS



TOTAL
NUMBER OF
EMPLOYEES

9,159



PLANTED
AREA

73,494

Hectare (HA)



LAND
BANK

98,212

HA



NUMBER OF
ESTATES

45



NUMBER OF
PALM OIL
MILLS

10



MSP0
CERTIFIED UNIT

44 ESTATES*

10 MILLS

*Balau Estate in Semenyih, Selangor no longer operates as an oil palm estate, but is being reserved for future development.



RSPO
CERTIFIED AREA

39,453

HA



CSPO*
PRODUCTION

136,432

MT

*CSPO - Certified Sustainable Palm Oil

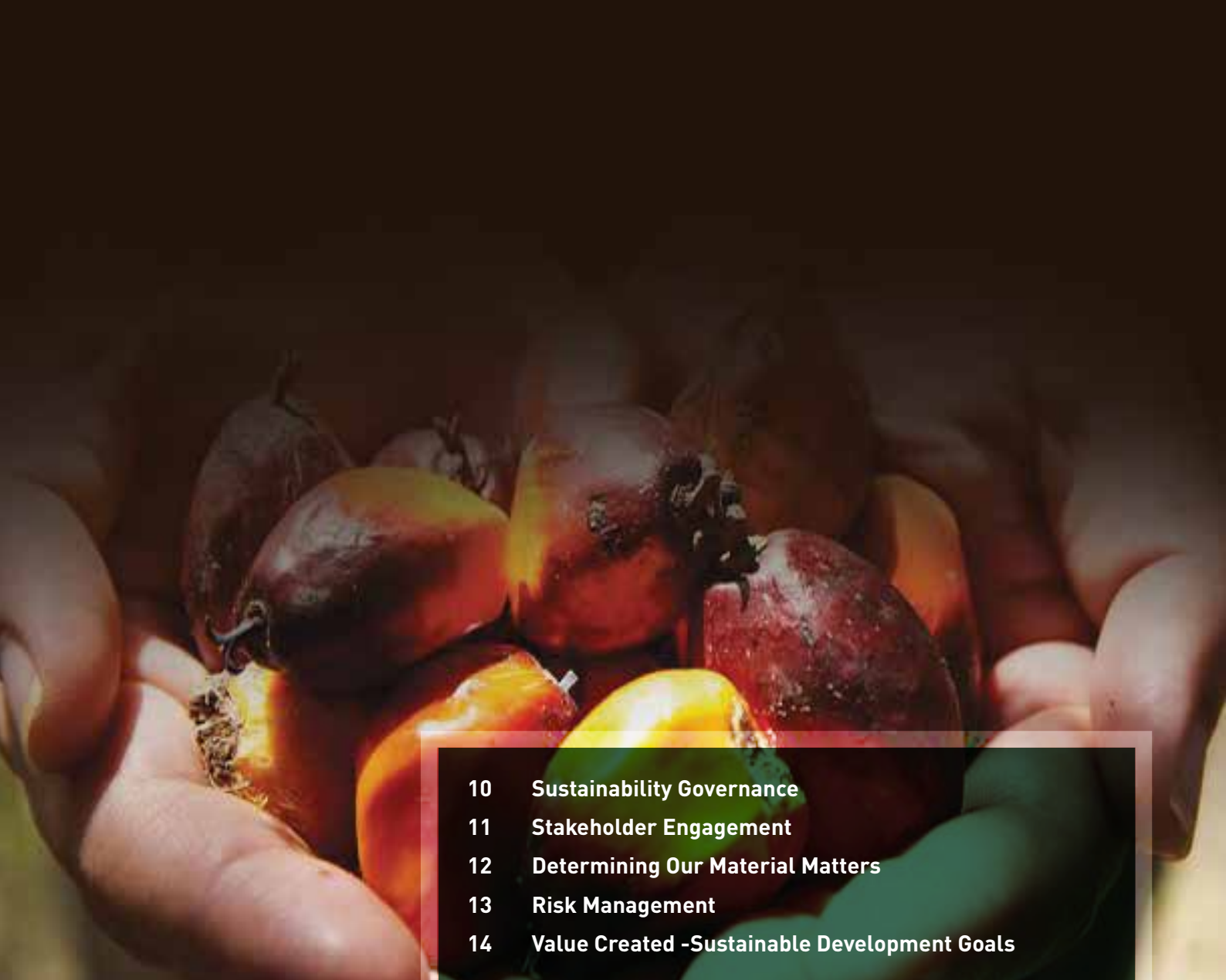


CSPK*
PRODUCTION

24,026

Metric Tonne (MT)

*CSPK - Certified Sustainable Palm Kernel



- 10 Sustainability Governance
- 11 Stakeholder Engagement
- 12 Determining Our Material Matters
- 13 Risk Management
- 14 Value Created -Sustainable Development Goals

SUSTAINABILITY APPROACH





SUSTAINABILITY GOVERNANCE

As part of the Group's commitment to promoting and enhancing an integrated management on sustainability, we have established a strong governance structure in place to supervise and manage sustainability issues.

The Board of Directors holds the highest authority and is responsible for the Group's sustainability strategy as well as its performance in sustainability matters.

The Sustainability Committee was formed to support the Board in undertaking its oversight duties in relation to the Group's sustainability objectives, policies and practices.

The Sustainability Management Committee, which is chaired by the Chief Executive Officer of BPB, is responsible for managing the Group's sustainability management and administration.

The Sustainability Working Committee oversees sustainability operations within the Group and the role of Sustainability Secretariat is held by the members of Sustainability and Safety Department.

BOARD OF DIRECTORS

SUSTAINABILITY COMMITTEE



Chairman

Tan Sri Dato' Wira Aziah Ali



Members

Maj. Gen. Dato' Seri Hj. Khairuddin Abu Bakar (R) J.P.
Datuk Hj. Shah Headan Ayoob Hussain Shah
Dato' Ahmad Rizal Abdul Rahman

SUSTAINABILITY WORKING COMMITTEE

Head : Anuar Semail

Secretary : Ahmad Azhar Shah Ibrahim

Members : Noral Afida Alwi Azrin Mazhidi Abdul Manab
Shafie Muhd Zain Nurul Hanani Abdullah

SUSTAINABILITY MANAGEMENT COMMITTEE



Members

Ibrahim Abdul Majid
Mohamad Azlan Jaafar
Mohamad Mahazir Mustaffa

SUSTAINABILITY SECRETARIAT

Head : Anuar Semail

Members : Mohammad Tarmizi Taufek
Hafizi Boniran
Amrul Nizam Abdul Ghani
Muhd Hafiz Mamat
Nurul Hanani Abdullah

SUSTAINABILITY COMMITTEE - MEMBERS AND MEETINGS

The Sustainability Committee held a total of two meetings during the financial year. Details of the composition of the Committee and the attendance by each member at the Committee meetings are set out below:

COMMITTEE MEMBER

Tan Sri Dato' Wira Aziah Ali (Chairman of the Committee)
Maj. Gen. Dato' Seri Hj. Khairuddin Abu Bakar (R) J.P.
Datuk Hj. Shah Headan Ayoob Hussain Shah (Member from 1 September 2020)
Dato' Ahmad Rizal Abdul Rahman (Member from 1 January 2021)
Dato' Chan Kong Yew (Member until 24 June 2020)

ATTENDANCE OF MEETINGS

2/2
2/2
NIL
NIL
2/2

STAKEHOLDER ENGAGEMENT

We recognise the importance of engaging with our stakeholders in order to adequately determine their key concerns. It is these concerns that form the crux of our sustainability strategy and reporting process.

Keeping this in mind, we maintain consistent communications with our diverse pool of stakeholders including our customers, government agencies, key players in the palm oil industry, non-governmental organisations (NGOs), local and indigenous communities, employees as well as the wider society.

Building on the principle of integrity and accountability, we strive to ensure full transparency in all communications with our stakeholders. Further on that, we adopt an open approach to address any grievances or issues that are brought forth by our stakeholders. For this purpose, we have put in place a grievance procedure to allow for systematic and efficient engagement with our





Stakeholder engagement at Bebar Estate, Muadzam Shah, Pahang

stakeholders on concerns pertaining to sustainability policies and practices.

Additionally, all our business operations are in strict compliance with applicable laws and regulations, including the National Interpretation of the RSPO Principles and Criteria. To this end, the Group has successfully obtained RSPO certification for six palm oil mills. Moving forward, we aim to obtain RSPO certification for the remaining palm oil mills by 2023.

Details of our engagement with stakeholders during the financial year are as follows:
(Due to the COVID-19 pandemic, our stakeholder engagements were held virtually)

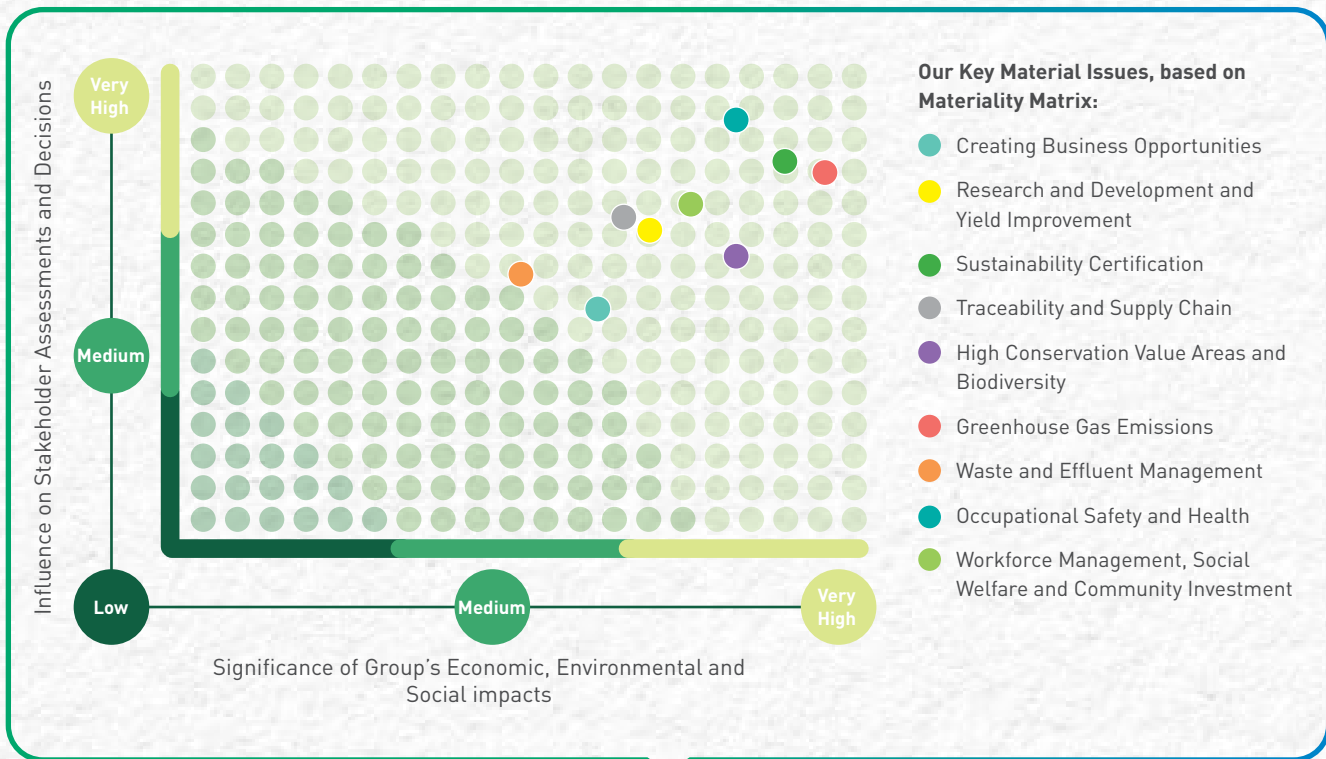
Stakeholder	Purpose	How We Engage	Frequency	Outcomes
 Government Agencies	<ul style="list-style-type: none"> • Compliance and regulation matters • Government investment and partnerships 	<ul style="list-style-type: none"> • Periodic meetings • On-site inspections • Correspondence on regulations 	As required	Developed and improved guidelines
 Local Communities	<ul style="list-style-type: none"> • Land Rights • "Free Prior, Informed Consent" • Sustainability practices • Community partnerships • Support for local businesses • Employment opportunities 	<ul style="list-style-type: none"> • Frequent on-site meetings • RSPO Complaints and Grievances 	Monthly, annually and as required	Invested in a range of community programmes and initiatives









DETERMINING OUR MATERIAL MATTERS

The key to our approach in producing sustainable palm oil is our identification and management of material issues. This ensures that we are prioritising and focusing on the most significant economic, environmental, and social issues that are of greatest importance to our stakeholders.

Throughout the period under review, there were no significant changes to our business model or operating boundaries. As such, the material concerns continue to be indicative of our journey to strengthen the Group's sustainability performance.



RISK MANAGEMENT

Key Issues	Mitigation and Existing Control/Progress in FY2020	Link to Material Issues	SDG
 <p>Sustainability Certification</p> <p>Description</p> <ul style="list-style-type: none"> • Instigation by NGOs attributable from inconsistent practices which are against standard requirement. • Adverse changes in government policies related to industry and sustainability standards. 	<ul style="list-style-type: none"> • To obtain RSPO certification for all 10 Business Units by 2023. • Monitoring and reporting of non-compliance status for Uncertified Business Unit. • Implementing best agricultural management practices in all operations. • 100% MSPO Certified • RSPO certified areas 39,453 Ha • Continuous implementation of best agricultural management practices 	Sustainability Certification Scheme	
 <p>Safety and Health</p> <p>Description</p> <ul style="list-style-type: none"> • Non-compliance with Department of Occupational Safety and Health statutory requirements. • Outbreak of COVID-19 pandemic 	<ul style="list-style-type: none"> • Establishment of Safety and Health Policy, Occupational Safety and Health related Standard Operating Procedures (SOPs) and guidelines monitoring by Safety and Health Officer. • Annual Safety and Health Compliance visit by Safety and Health Officer. • Regular safety training, dialogues and roadshows. • Stringent control on employees/visitors movement to/from operating units by Auxiliary Police. • Establishment of SOPs on COVID-19 control measures at operating units • Implementation of work from home arrangement for head office employees (when necessary). 	Occupational Safety and Health	
 <p>Environmental Risk</p> <p>Description</p> <ul style="list-style-type: none"> • Non-compliance with Department of Environment statutory requirement • Potential of improper implementation of chemical and waste disposal which will result to license suspension. 	<ul style="list-style-type: none"> • Establishment of SOPs on waste management. • Installation of wet scrubber system and electrostatic precipitator for dust particulate emission control. • Installation of biogas plant for palm oil mill effluent carbon footprint control. 	Waste and Effluent Management	



VALUE CREATED - SUSTAINABLE DEVELOPMENT GOALS



**SDG 2 –
ZERO HUNGER:**
End hunger, achieve food security and improved nutrition and promote sustainable agriculture

How We Contribute to SDGs:	Related SDGs Target:	Value Created
<ul style="list-style-type: none"> • Focused on contributing to sustainable food production systems, the improvement of land and soil quality as well as increasing productivity. • Committed to the improvement of agricultural production capacity through investment in agricultural research. 	<ul style="list-style-type: none"> • Targets 2.4, 2.a 	<ul style="list-style-type: none"> • 136,432 MT of CSPO produced • 24,026 MT of CSPK produced • 39,453 Ha RSPO certified



**SDG 8 –
DECENT WORK
AND ECONOMIC
GROWTH:**
Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all

How We Contribute to SDGs:	Related SDGs Target:	Value Created
<ul style="list-style-type: none"> • Supporting the growth of small and medium local suppliers. • Strongly enforced policies for the eradication of child labour and forced labour. • Promoting a safe and secure working environment for all. 	<ul style="list-style-type: none"> • Targets 8.2, 8.8 	<ul style="list-style-type: none"> • More than RM100 million procurement spending on local vendors. • Lost Time Injury Frequency Rate of 7.39



SDG 12 – RESPONSIBLE CONSUMPTION AND PRODUCTION:

Ensure sustainable consumption and production patterns

How We Contribute to SDGs:

- Focused on undertaking the environmentally sound management of chemicals and wastes throughout their life cycle as per the agreed international frameworks.
- Committed towards reducing the release of chemicals and wastes to air, water and soil.
- Adopted sustainable practices and integrate sustainability information into our Sustainability Report.

Related SDGs Target:

- 12.4, 12.5, 12.6 12.a

Value Created

- Our waste products are repurposed in line with the Group's Zero Waste Strategy.
- Total Biogas captured in FY2020 1,921,081 m³.
- Total Solid Biomass: 484,160 MT.
- Total Liquid Biomass: 917,829 MT.
- 253,608 MT empty fruit bunches (EFB) were utilised and applied to 4,980 Ha.
- Sustainability Report FY2020. It is our intention to report each year in line with the Company's financial reporting cycle, which is the calendar year.





ACHIEVING STRA GROWTH



STRATEGIC H



Creating Business Opportunities



Research and Development and Yield Improvement



Sustainability Certification Scheme




Traceability and Supply Chain



CREATING BUSINESS OPPORTUNITIES



Kanowit Palm Oil Mill, Sibul, Sarawak



Obtained approximately
4%
of total external FFB from
surrounding smallholders



Spent over **RM100**
million in the procurement
value chain

The Group is committed to advancing its business sustainably while propelling the economic growth of the surrounding communities. We encouraged local development by supporting the smallholders where we obtained approximately 4% of our total external fresh fruit bunches (FFB) from surrounding smallholders. We have also established a dedicated department to manage the purchase of outside crop.

Even during this challenging time of COVID-19, we are still able to aid in the development of local vendors by spending more than RM100 million in the procurement value chain.

During the year, we continued our contribution improvement of the living conditions of our surrounding communities by maintaining Boustead Community Road Maintenance Programme near Segamaha Business Unit and Rimba Nilai Business Unit.



RESEARCH AND DEVELOPMENT AND YIELD IMPROVEMENT

Despite the countless uncertainties posed by the COVID-19 pandemic and the numerous forms of MCOs (movement control orders) in Malaysia, we continued to place emphasis on research and development in order to operate more sustainably with innovative solution options. One of the major challenges for the plantation is the labour shortages due to the scarcity of skilled local workers and compounded by the close border policy which restricted the entry of foreign workers.

Innovative ways to maximise productivity of available workers, implement safer working methods and improve labour productivity especially with the use of innovative technology remains a main research and development (R&D) target for the company. On this front, our R&D associate company Applied Agricultural Resources Sdn. Bhd. (AAR) continue to search and “re-research” ideas which can be adapted and deployed for use in the plantation industry. Some of the research works were carried out in collaboration with technical providers, both local and international.



Launching of the Oryctes Drone by KKMM in August 2020; representatives of BPB were present during the launch

1

Oryctes agricultural spot spraying drone with support obtained from the Ministry of Communications and Multimedia (KKMM) through Malaysia Digital Economy Corporation (MDEC), an agency under KKMM.



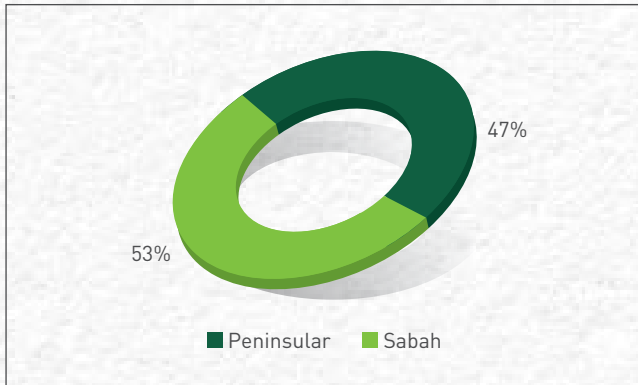
Workable proof of concept autonomous drone in an oil palm plantation (top picture)
View from drone's onboard camera deploying liquid payload onto palm spears (bottom picture)



RESEARCH AND DEVELOPMENT AND YIELD IMPROVEMENT

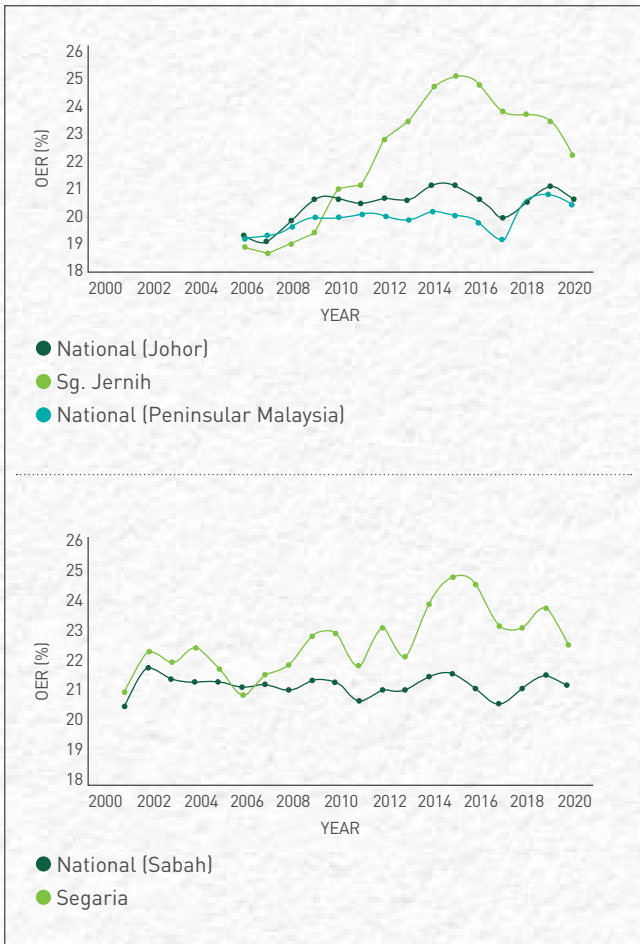
2

Tissue Culture Planting Material



Proportion of Tissue Culture Clonal Plantings in BPB's estates up to early 2020

In addition to planting superior quality high yielding AA Hybrida series seeds, we continued to intensify its planting of tissue culture clones i.e. AA Vitroa with most of the plantings carried out in the last 12 to 19 years. Up to early 2020, our estates have planted a total of more than 26,000 ha with high oil yielding clonal varieties (culminating in our mills consistently achieving significantly higher oil extraction rate (OER) compared with national average). We will also intensify planting of AAR's newest Hybrida series i.e. AA Hybrida II which has even higher oil yields in addition to high yielding high carotene tissue culture clonal varieties.



Comparison of OER in BPB's Sg. Jernih (above) and Segaria (below) Palm Oil Mills vs National Averages. BPB's mills in blue line

The Group is expected to commence the planting of soon to be launched AA Hybrida LS (Long Stalk) later this year. The AA Hybrida LS has a long peduncle or stalk which will improve the efficiency of the harvesters.



AA Hybrida LS; a game-changer high yielding planting material with long stalk

3

Organic and Biofertilisers

Recently we have locally isolated several nitrogen-fixing bacteria which has been demonstrated to fix atmospheric nitrogen, unique phosphate-solubilising bacteria which can unlock the vast amount of fixed soil phosphate as well as numerous *Trichoderma* species, exhibiting not only biocontrol traits but also beneficial traits such as phosphate solubilisation.

Stimulate Plant Growth by:

- Increasing nutrient availability
- Phytohormone production

Alleviate Biotic & Abiotic Stress by:

- Suppressing Abiotic stresses
- Suppressing Biotic stresses

Use of beneficial microbes to stimulate plant growth and reduce plant stresses in order to produce more with less



RESEARCH AND DEVELOPMENT AND YIELD IMPROVEMENT

4 Smart Fertiliser Spreader

The jointly developed Verion Smart Fertiliser Spreader has the capability of applying fertilisers precisely as per recommendations and also tracks and provides management with an “As-Applied Fertiliser Map” that is used to ensure that each palm obtains its fair share of fertilisers in a very transparent manner.



Early prototypes in BPB's Telok Sengat Estate (Upper Left Photo). Trailer type newer smart machines (bottom left photo) which customisable. 600kg stainless steel machine with 1 fertiliser type mounted on 3-point linkage of midi-tractor. Fertiliser application with improved smaller payload capacity (upper right photo). Similar good uniform throw of fertilisers (bottom right photo)



SUSTAINABILITY CERTIFICATION SCHEME

Certification serves to provide a reliable source of assurance to stakeholders that the Group's products are produced sustainably, responsibly and ethically, with the necessary safeguards put in place to mitigate risks. As part of our commitment to comply with all relevant laws and regulations, we also prioritise recognised standards which are consistent with our core commitments.

As a reflection of our focus on sustainability certification, we have successfully obtained 100% MSPO Certification for all of our palm oil mills and estates including our newly acquired Tawai Business Unit. We aim to obtain 100% RSPO Certification by 2023. As of 2020, 6 of our palm oil mills and 21 estates have been RSPO certified.



MSPO/RSPO Surveillance Virtual Audit



RSPO CERTIFIED AREA

2017: 21,633 Ha	2019: 34,278 Ha
2018: 26,347 Ha	2020: 39,453 Ha



MSPO CERTIFIED UNIT

2017: 1 Mill, 1 Estate	2019: 7 Mills, 29 Estates
2018: 4 Mills, 15 Estates	2020: 10 Mills, 44 Estates*

*Balau Estate in Semenyih, Selangor no longer operates as an oil palm estate, but is being reserved for future development.



TOTAL CSPO

2017: 57,292 MT	2019: 108,317 MT
2018: 84,420 MT	2020: 136,432 MT



TOTAL CSPK

2017: 10,221 MT	2019: 19,278 MT
2018: 15,964 MT	2020: 24,026 MT



TRACEABILITY AND SUPPLY CHAIN



With the enhancement of our current oil palm management, the Traceability Monitoring Programme has been developed and implemented at our certified sustainability areas. As of to date, 60% of our mills have been certified with RSPO Supply Chain. This programme will enable us to trace the origins of the crude palm oil back to the source.

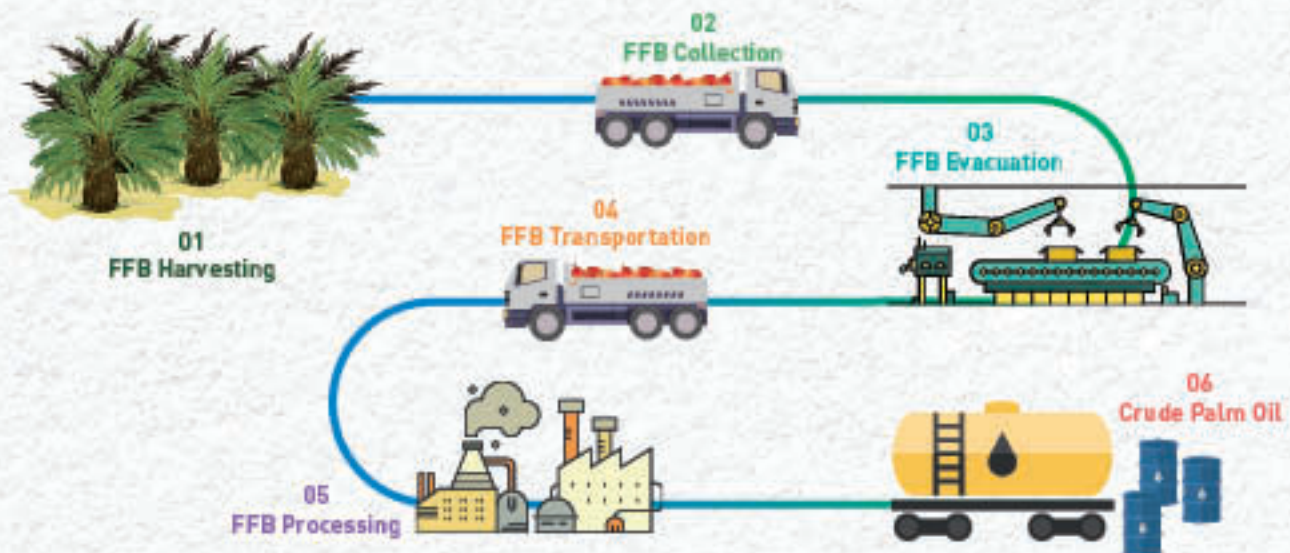
We ensure that all of our palm products are traceable through the entire supply chain. The Group remains steadfast to fully trace the source of FFB supplied by all third-party suppliers and we will constantly engage with these suppliers to further improve and enhance our traceability mechanism. In order to enhance traceability, all mills must keep data of FFB suppliers such as:





Telok Sengat Palm Oil Mill, Kota Tinggi, Johor

Our traceability monitoring programme adheres to both RSPD and MSPD Supply Chain Certification Standard. This is our pledge to our Customers to produce the best quality palm product.



A photograph of a person in a boat on a river, with a large tree trunk in the water. The background is a lush green forest.

SAFEGUARDING ENVIRON



High Conservation Values Area and Biodiversity



Greenhouse Gas Emissions



Waste and Effluent Management

THE MENT



HIGH CONSERVATION VALUES AREA AND BIODIVERSITY

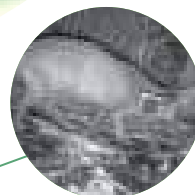
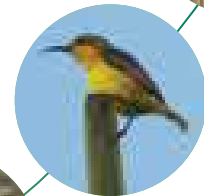


Hot Spring Segaria Estate, Semporna, Sabah

Managing HCV area entails active stakeholder engagement efforts be it with the surrounding communities, non-governmental associations and government entities. During the year, we undertook engagement sessions with the Department of Wildlife and National Parks Peninsular Malaysia (PERHILITAN) and Forestry Department.

We engaged external experts who advise us on specific areas of HCV conservation. Our HCV assessment process is benchmarked against RSPO and MSPO standards.

To date, we have identified all HCV areas located within our estates and have set aside 576 Ha of HCV areas, comprising jungle pockets, wetlands and others.



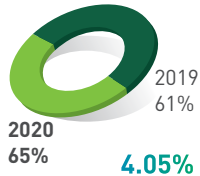


GREENHOUSE GAS EMISSIONS

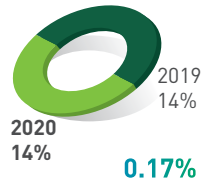
As a responsible corporate citizen and a key player in the plantation sector, we recognise the vital role we play in the fight against climate change. GHG emissions are not only a key contributor to climate change, these emissions also pollute our environment.

Percentage of GHG emissions by sources tCO₂e (tonnes (t) of carbon dioxide (CO₂) equivalent (e)):

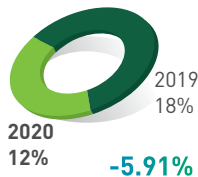
Land use Change



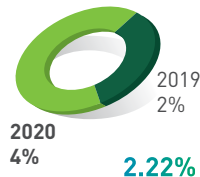
Peat Oxidant



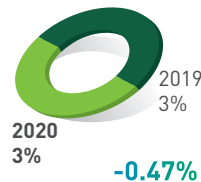
Palm oil mill effluent (POME)



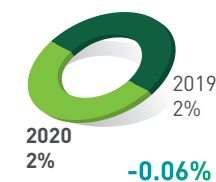
Fertiliser emissions (nitrous oxide (N₂O) & CO₂)



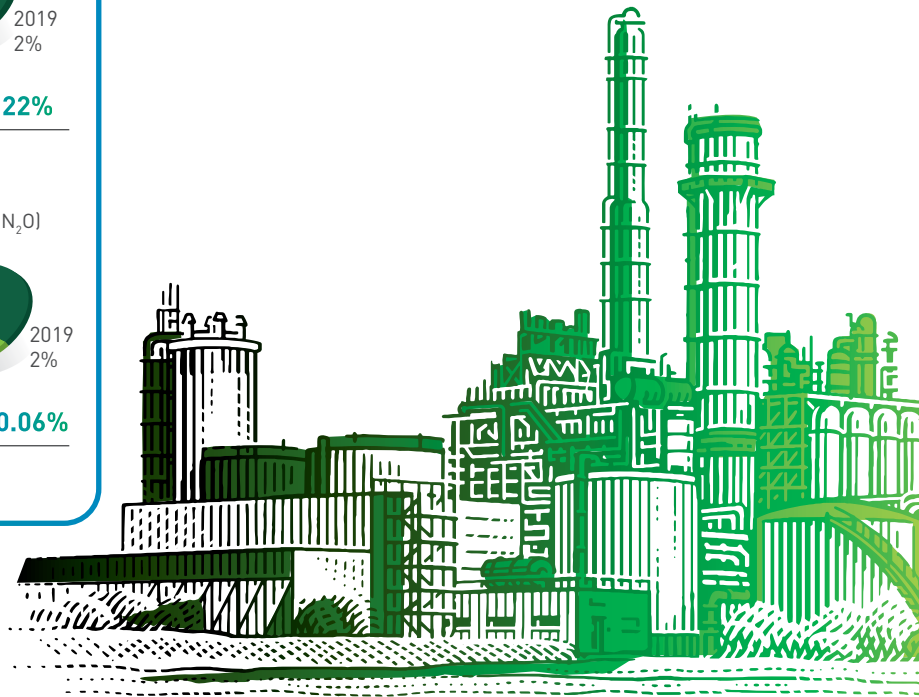
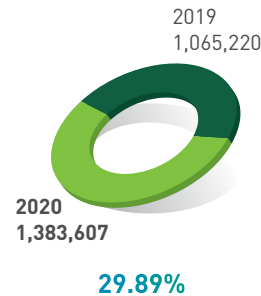
Fuel Consumption



Peat emissions (N₂O)

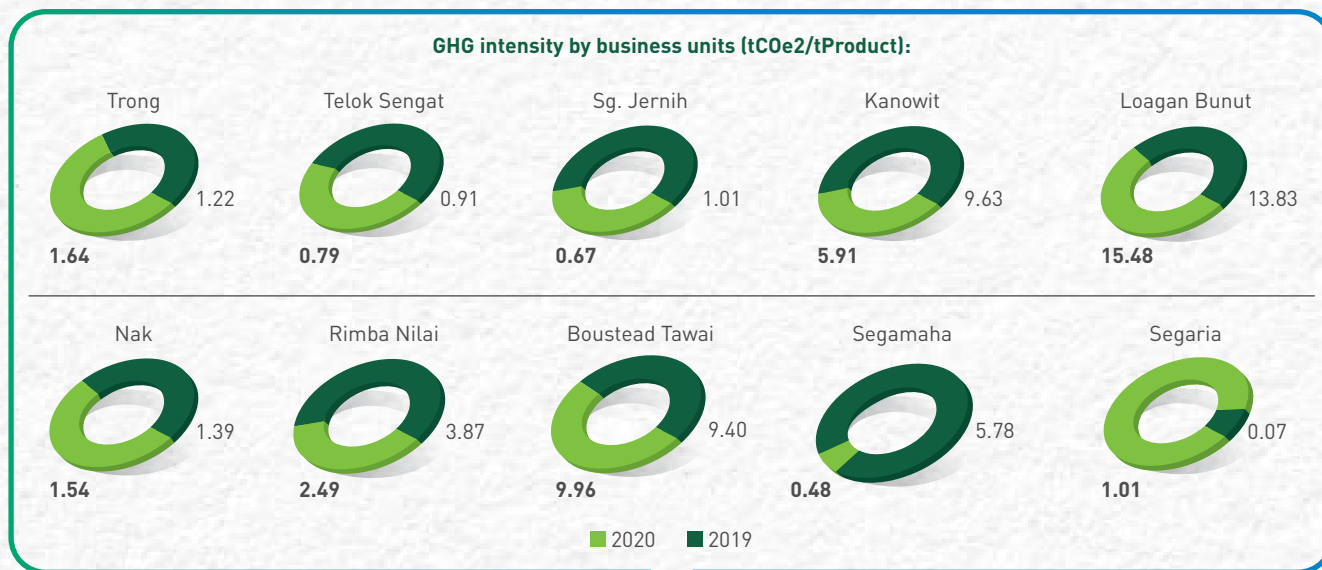


Total GHG Emissions (tCO₂e):





GREENHOUSE GAS (GHG) EMISSIONS



The Group will continue to monitor our emissions and energy consumption linked to palm oil production as we work to minimise our emissions. As part of our efforts to provide greater transparency pertaining to our carbon footprint, we implemented a more complete GHG inventory by tracking and monitoring additional emission sources. We have been utilising RSPO PalmGHG version 4.0.1. This will aid us in completing our baseline studies as well as identification and estimation of the potential sources of emission and sinks of carbon from our operations, including mitigation plan in minimising net GHG emissions.

GHG Emission Source	tCO ₂ e	Impact(s)
Land use change	900,061 (65%)	Release of stored carbon through replanting activities
Peat Oxidation	196,019 (14%)	Carbon stored in drained peatland is lost through oxidation
POME	167,235 (12%)	Methane (CH ₄) release from POME
Fertiliser emissions	58,375 (4%)	<ul style="list-style-type: none"> N₂O emissions from soil treated with nitrogen-based fertilisers CO₂ emissions from the transportation of fertiliser to estates
Fuel Consumption	35,042 (3%)	CO ₂ emissions from the usage of tractors, lorries and other machineries in estate operations
Peat emissions	26,875 (2%)	Releases CO ₂ and CH ₄ into the atmosphere causing a negative impact on climate change

Mitigation plan on minimising emissions:

- Increase in carbon sequestration through a rise in conservation areas and river buffer zones, among others which is being implemented by all estates.
- Reduction of pollution and GHG emissions from POME through the construction of biogas plants to capture methane formed from the anaerobic digestion of organic solids. Currently, one (1) biogas plant has been constructed at the Telok Sengat Palm Oil Mill.
- Best Management Practices implemented on peat soils to minimise subsidence and oxidation as spelled out in the company's oil palm circular (OPC)
- No new planting on peat regardless of depth.
- Where feasible, to explore options for peat restoration by working with experts, stakeholders and communities.
- Reduction of carbon emissions as a result of the utilisation of tractors as part of estate operations via the implementation of regular vehicle maintenance.
- Regular cleaning, treatment and inspection of diesel skid tanks.
- Safe elimination of carbon deposits contained within diesel skid tanks in order to enhance diesel particle stability.
- Oil Palm Manuring Recommendation from Applied Agriculture Resources Sdn Bhd which has been adopted by the Group which involves:
 - Data obtained from soil and leaf samplings is utilised to determine the type of fertiliser to be applied.
 - Reduction of nitrogen emissions as a result of strategic fertiliser application.
- Adoption of best management practices that promote the soil's role as a carbon sink by planting cover crops that lock in more carbon.



WASTE AND EFFLUENT MANAGEMENT

Proper handling of effluent and waste is essential for strong environmental control. Without solid and effluent waste management plans, we run the risk of damaging our ecosystems and endangering those who depend on nature for survival.

In addition, by reducing waste, limiting the consumption of natural resources and restoring our waste, we strive to reduce our impact on the environment.

Our plantations produce various biomass by-products including fronds, empty fruit bunches (EFB), fibres, shells and POME. These waste products are repurposed in line with the Group's Zero Waste Strategy.



Biomass Production (solid & liquid):

1,401,989 MT Biomass was produced (14% increase compared to 1,233,509 MT in 2019) of **1,152,763** MT FFB processed for year 2020.

Biomass by-product:

- | | |
|---|--|
| • Palm Fronds | • Kernel Shells |
| • EFB 253,608 MT
(EFB hectareage applied:
4,980 Ha) | 57,638 MT |
| • Mesocarp Fibres
172,914 MT | • POME
917,829 m ³
(POME hectareage applied:
394 Ha) |



Recycling Waste System



FFB are sent to the mills within 24 hours of harvest.



After extracting the CPO and PK, we are left with four by-products.



Fibres
(Solid waste)



Shells
(Solid waste)



EFB
(Solid waste)



POME
(Liquid waste)



Fuel
Fibres and shells are used as boiler fuel in the mills.



Mulch
Old fronds are made into mulch.

At the time of replanting, old fronds are chopped or pruned and placed in the soil to become organic fertiliser. They also help to conserve soil moisture.



Organic Fertiliser
Fertiliser production from composted EFB and the treated POME is used for the oil palm trees in our plantations.



POME is treated at our waste water treatment pond to reduce acidity, Biological Oxygen Demand (BOD) and Chemical Oxygen Demand (COD) levels so that it becomes safe for use as an organic land fertiliser.

A specific application permit is obtained for each location, with close monitoring of environmental impact as required by the authorities.



Biogas
POME can also be processed with a methane capture technique where the end result is biogas which can be used as energy.



Palm fruit is harvested from oil palm trees in the form of FFB.



WASTE AND EFFLUENT MANAGEMENT



Aerator at Boustead Tawai Palm Oil Mill

Solid biomass consisting of mesocarp fibres, palm kernel shells and shredded EFB are transformed into fuel that is then utilised by our biomass boilers. Steam and electricity generated by our boilers are more than adequate to fulfil the energy requirements of our mills.

Renewable Energy Generated

from boiler by reusing the solid (mesocarp fibres & kernel shells) biomass product:

24,048,680 kWh

Approximately 253,608 MT of EFB, was repurposed into mulching or organic fertiliser, allowing us to lessen our reliance on synthetic fertilisers while contributing to cost savings.

We are also able to improve soil fertility, lessen nutrient loss and stop fertiliser outflow by stacking palm fronds between rows of palm trees.



Dewatering of POME

Recover POME solids

POME solids contain 6% Nitrogen

An organic fertiliser to replace inorganic fertiliser

5,265 MT of effluent solids were converted from POME in 2020 as compared to 4,742 MT in 2019



Dewatering machine at Nak Palm Oil Mill, Sandakan, Sabah



Land Irrigation of POME

Being an organic waste with a high BOD concentration, POME was treated before discharge to conform to strict regulations of the Environmental Quality Act 1974.

Valuable by-product because of its high nutrient contents. Its application onto land had been shown to be beneficial to crops. The effort was to fully utilise POME as a fertiliser substitute.

Volume of treated POME (917,829 m³) for land irrigation.

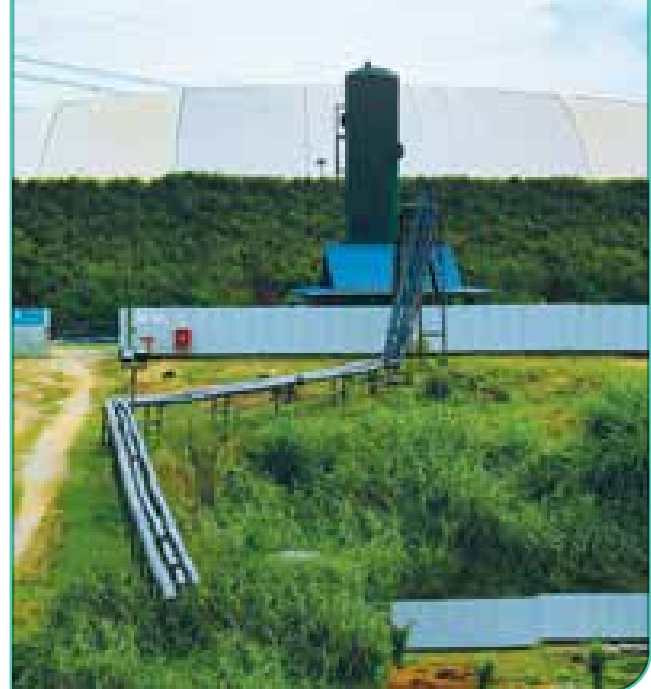


Biogas Plant (Telok Sengat)

In line with the Group's efforts to minimise our carbon footprint, we generate our own electricity at our Biogas Plant at the Telok Sengat Oil Mill in Kota Tinggi, Johor.

On average **109,028 m³** (2019: 102,000 m³) of liquid biomass consisting of POME is transformed into **1,921,081 m³** (2019: 2,111,735 m³) of biogas which is then captured through a covered lagoon biodigester system at our mill.

About **71%** (2019: 70%) of the biogas is then converted to generate up to 1,242 MWh (2019: 1,249 MWh) of electricity per year and reduce our reliance on fossil fuel. The electricity derived from our renewable energy source is utilised for milling and domestic consumption.



Biogas plant at Telok Sengat Palm Oil Mill, Kota Tinggi, Johor



WASTE AND EFFLUENT MANAGEMENT

Sg. Jernih Palm Oil Mill, Pekan, Pahang



Air Pollution Control System (APCS)

Environment Quality (Clean Air) Regulations, 2014 enacted to enforce the compliance of maximum concentration limit values for selected air pollutants at the flue-gas stack discharge. Particulate matter emission level shall less than 150 mg/m^3 . Dateline given by Department of Environment is December 2021.



Wet Scrubber

- Commissioning at Segamaha Palm Oil Mill in March 2017.
- Particles are attached to the sprayed water and drop (settle) due to gravity.
- Particulate matter reduction **32%** as compared to conventional method.

Current approach

Electrostatic Precipitators (ESP)



- Running at Trong, Kanowit, Rimba Nilai and Sg Jernih. Other remaining mills are in various stage of installation except for Loagan Bunut Mill.
- Particles are attached to positively charged plates and stick to it, and later removed by scraper.
- Particulate matter reduction **74%** as compared to conventional method.

ESP Commissioning Status



Palm Oil Mill



Status

Trong	▶	Commissioned – October 2020
Kanowit	▶	Commissioned – October 2020
Sg Jernih	▶	Commissioned – November 2020
Rimba Nilai	▶	Commissioned – December 2020
Telok Sengat	▶	Commissioned – January 2021
Nak	▶	Commissioned – February 2021
Segaria	▶	Expected date of completion June 2021
Boustead Tawai	▶	Expected date of completion August 2021





NG F PEOPLE



Occupational
Safety and Health



Workforce
Management,
Social Welfare and
Community
Investment



OCCUPATIONAL SAFETY AND HEALTH



Swab test at Segaria Estate, Semporna, Sabah

COVID-19 CHALLENGES

The unprecedented COVID-19 pandemic has affected our operation as a whole. This issue has been effectively handled and managed by introducing new working norms.

Guidelines introduced and implemented at the ground (Estates & Mills)



Daily temperature screening



Use of hand sanitizers and frequent hand washing practices



1-meter distancing from each worker in office, in field and during musters



No hand shaking



Control of people at the entrance and exit of all estates and mills. (Prohibition of any unauthorised personnel entering or exiting the estates)

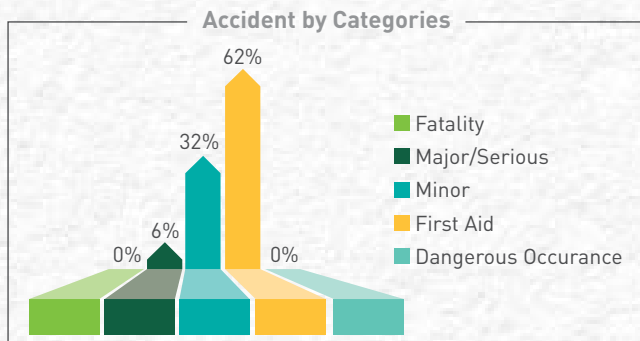
The compliance of above guidelines and update of Covid-19 cases are being monitored on a daily basis.



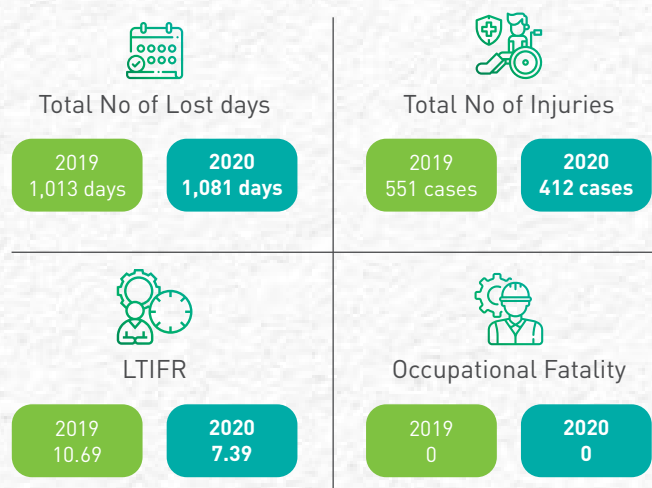
OCCUPATIONAL SAFETY AND HEALTH

Occupational safety and health

Safety is paramount to all industries. We have steadfastly minimised industrial accidents at all units. Each estates and mills have established Safety and Health Committee to administer and monitor all related safety and health issues. The committee religiously their quarterly meeting. The effectiveness of the committee is reflected in the reduction of 2020 Lost Time Injury Frequency Rate (LTIFR).



Lost time injuries



*LTIFR represent the number of lost time injuries occurring in a workplace per 1 million hours worked.

First-aid training has been periodically conducted on internal and external basis. For the year 2020, some of the training which have been successfully carried out are;

- 01 ➤ First-aid training
- 02 ➤ Fire drill training
- 03 ➤ Safe work procedures training
- 04 ➤ Defensive driving training
- 05 ➤ Workplace ergonomic training

We are pleased to report that in 2020 there were no occupational fatality cases arising from our operations.



Safety and health signage at Bukit Segamaha Estate, Lahad Datu, Sabah

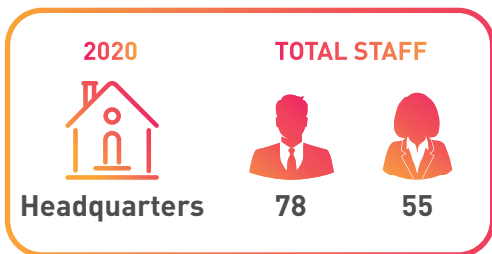




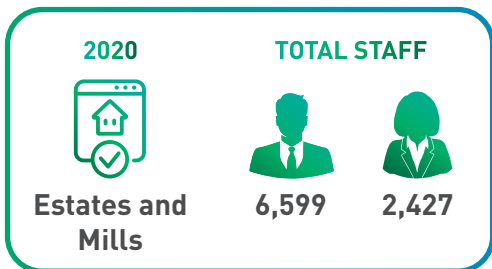
WORKFORCE MANAGEMENT, SOCIAL WELFARE AND COMMUNITY INVESTMENT



CLC pupils at Resort Estate, Sandakan, Sabah



The diversity of our employees creates a conducive environment at our workplace. Our employees are empowered to develop their respective talents in order to realise their full potential.



The rights of all our employees, including the immigrant workers, are duly recognised and respected and the employees are protected from any form of discrimination and harassment. We also have established Policies on Human Rights, Gender Equality, Sexual Harassment, Reproductive Right, Freedom of Association, Equal Opportunities and No Child Employment which guide us and ensure that fair labour practices are a norm in all our operations.

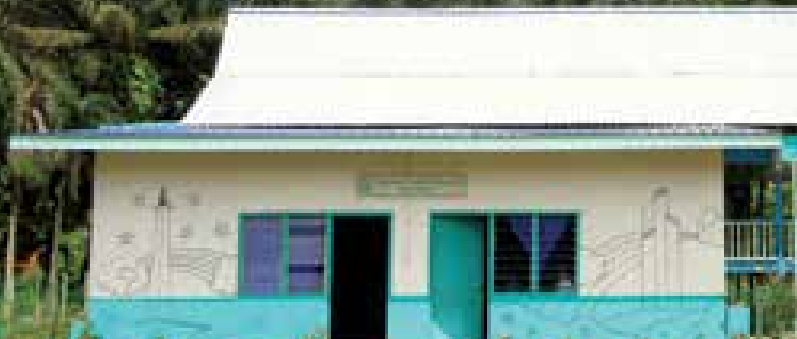
All our employees are given their fair share of training suited to their talent and position to prosper in their career in the Group. However, due to the movement control order arising from the COVID-19 pandemic, a lower number of training was conducted in 2020 one of which was the successful Lead Assessor ISO 9001 and ISO 14001 course.

Being a responsible corporate entity, a total of RM33,150 has been contributed in 2020 for the development of community and social welfare.

A range of facilities are in place to create a positive impact for the working community of estates and mills. This includes providing free transportation for school children, establishing creches and daycare centers where babies and toddlers are cared after. These facilities enable our female workers to focus on their work duties. Children are provided with formulated milk on a daily basis at our creches.

Education is a great value for all human beings. In line with this, we established a number of Humana and Community Learning Centre (CLC). Humana is a collaborated effort with Borneo Child Aid society to cater for immigrant children irrespective of their country of origin. Whereas CLC is a collaboration school with Indonesian Consulate and approved by Ministry of Education, Malaysia. Both schools cater to our estates and mills in East Malaysia. For remote estates and mills in Peninsular Malaysia, pre-schools are established in collaboration with KEMAS.

Apart from education, we also provide a basic healthcare estate clinic for our workforce and the surrounding communities where qualified personnel are employed to man the clinic.



CLC at Resort Estate, Sandakan, Sabah

Total Number of Pupils

Estate	Humana	CLC
Bukit Segamaha		84
G&G	36	
Nak		65
Resort		82
Sapa Payau		49
Sungai Segamaha		101
Sutera		60
Tabung Tentera Sabah	74	
Segaria		229
Total	110	670



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Regulations
2014 at all palm
oil mills





For More Info

Please Contact

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WHISTLEBLOWING

Our whistleblowing channels are as below:

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