



Bumitama Agri Ltd.
Excellence Through Discipline



SCOPE OF THIS REPORT



This report covers the calendar years of 2017 and 2018, as well as historical benchmark data as available. Data includes all our operations as of 31 December 2018, unless otherwise noted. The report does not include detailed information on our office-based operations in Jakarta and Singapore. In addition to impacts within our own organisational boundaries, the report covers material aspects for all plasma smallholders but limited information on independent suppliers, including smallholders. Due to the rapid development of our sustainability performance and plans, the report contains updated information on some 2019 events, notably with regard to planned programmes and complaints resolutions, as we consider these to be of material importance to our stakeholders.

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CHAIRMAN WELCOME



As a mid-sized palm oil company, we cannot drive major industry change alone. However, we are willing to take the lead where we are strategically positioned to make a positive difference. With our biodiversity projects in Kalimantan, we have been able to leverage our land holdings and our good relations with plantation companies, government bodies and civil society partners to achieve something truly unique.

I am grateful for this opportunity to present our sustainability report covering the financial years 2017 and 2018. The past two years have been eventful, and I feel that we have made tremendous progress in many areas close to my heart.

Financially we have gone from strength to strength – as our planted areas have matured, as our yields have increased even though Crude Palm Oil prices had been lower in 2018 compared to 2017. This continued growth provides a solid foundation for sustaining our work over the long term, and I am pleased to report that our investments in good agricultural practices and outgrower support are yielding positive results.

Our work on sustainability continues to progress on the path set out in our 2015 NDPE Policy, and in line with the guidance provided by the Roundtable on Sustainable Palm Oil (RSPO). Six of our 14 mills and just over 31% of our planted area are now certified, and 70.4% of our external fresh fruit bunch purchases are fully traceable. These achievements are bringing greater transparency while we work to identify further opportunities for improvement on the ground.

In light of our activities, I feel that we are well equipped to meet the continuous calls for improvement and change, and to be open and responsive to the concerns of all our stakeholder groups. We have been an active participant in

the RSPO Principles & Criteria review, and our operations are fully prepared for the significant changes to the standard.

I am concerned, however, that other industry players may feel that the bar has been set too high. Small operators in particular may decide that the rewards are too small to warrant the expense and complexity of sustainability certification and traceability systems. I am also troubled by the increasing polarisation between some sections of the NGO community and plantation companies as a whole. While we continue to seek partnerships, and work hard to be responsive and inclusive, we often feel at a loss as to how to build bridges with these important stakeholders. In my view, such partnerships are essential for building effective and long-term solutions to global and local challenges.

With this in mind, we have continued strengthening and deepening our efforts with a special focus on partnerships and community engagement. Our biggest achievements to date have been the development of wildlife corridors through the Bumitama Biodiversity and Community Project (BBCP) in West Kalimantan, and our reforestation programme in Central Kalimantan. Both projects have evolved in close collaboration with our civil society partners and local and provincial governments, as well as with the ongoing engagement and input of our local communities.



Gunawan H. Lim
Executive Chairman and
Chief Executive Officer

Linking these initiatives to community livelihoods, particularly through the development of non-timber forest products, benefits both ecosystems and people in the region. Projects of this type are only effective if they are scaled up to a regional level, so we are very pleased to see both other companies and local government bodies coming on board and offering support. The BBCP has also been recognised as part of the West Kalimantan Governor's Green Growth Plan.

As a mid-sized palm oil company, we cannot drive major industry change alone. However, we are willing to take the lead where we are strategically positioned to make a positive difference. With our biodiversity projects in Kalimantan, we have been able to leverage our land holdings and our good relations with plantation companies, government bodies and civil society partners to achieve something truly unique.

We are making good progress across a range of other sustainability measures, including fire prevention, internal training programmes, support programmes for women employees and children's education. Key aspects of our governance system have been strengthened following the publication of our expanded anti-corruption and anti-bribery policies. We have also ramped up our external engagements through multistakeholder initiatives, including the High Carbon Stock (HCS) Approach Steering Group and the PONGO alliance.

While our progress has been significant throughout this reporting period, we still have so much work to do. Based on feedback from external stakeholders, we have strengthened our governance procedures through the introduction of a new anti-corruption policy, and an update to our land acquisition policy, to ensure that for example issues around family links within our business are disclosed and addressed.

Within our operations, we will continue to focus on improving workers' accommodation and benefits, and we are investing heavily to reduce accident rates and eliminate workplace fatalities. Our path towards long-term sustainable business will continue for decades to come, so I would like to extend a warm thanks to our employees, our civil society partners and our industry peers for contributing support and inspiration as we keep working towards a better common future.

GUNAWAN H. LIM
Executive Chairman and
Chief Executive Officer

REPORT REVIEW: ERIC WAKKER



Bumitama's sustainability journey progresses, dynamic as ever. As noted by the Chairman, expectations placed on the industry's sustainability deliverables still rise. The company is continuously challenged to catch up, having to meet the latest sustainability standards, and to lead in showing proof of concept for novel approaches.

It is a pleasure to review Bumitama Agri's sustainability report, its third since the Group adopted its Sustainability Policy in August 2015.

Bumitama's sustainability journey progresses, dynamic as ever. As noted by the Chairman, expectations placed on the industry's sustainability deliverables still rise. The company is continuously challenged to catch up, having to meet the latest sustainability standards, and to lead in showing proof of concept for novel approaches. It is making good progress in both fields. Such progress would be relatively easier to deliver when a company's land bank was fully consolidated, but Bumitama Agri does so whilst it continues to add new plantations to its land bank.

As mentioned in my review in 2015, the company previously had gaps in the "chain-of-command" that resulted in situations on the ground that were contrary to published management statements. Since then, land development had been made conditional to approval from the Sustainability Team. This helped prevent non-compliant development but in the past year, there has been some backsliding in this good practice. It resulted in some non-compliant development that was externally detected and required the company to issue and publish a corrective Stop Work Order. Since non-compliance can have major consequences for the Group's sales, I underscore the need for management to regularly reaffirm the Sustainability Team's mandate.

Ever since its public listing, Bumitama has been subject to intense scrutiny by campaigning NGOs, and 2018 was no exception. Concerns were raised about the manner in which the Group acquired and disposed of land bank, suggesting that management had attempted to circumvent the Group's conservation liability, an area in the order of 11,000 hectares. In this light, Bumitama's deliverables are to be appreciated. Between 2014 and 2018, the Group added 26,000 hectares of forest and peat to its conservation set asides, thereby tripling the total area set aside for conservation to nearly 40,000 hectares. The Group's contributions to forest protection and restoration will not stop there either, as I will lay out further below.

It is regrettable that the impressive progress made with conservation is overshadowed by questions about the Group's land bank and how plantation companies are acquired. But such questions are understandable in the light of the suboptimal transparency in the sector as a whole. As an RSPO member, Bumitama has caught up to comply with the RSPO New Planting Procedure. It has submitted its concession maps to RSPO to enable monitoring. My organisation recommends growers to publish their concession maps on their website in a common effort to restore public trust in the industry's commitment to sustainable development. Although the format leaves room for improvement, Bumitama will now/soon release maps of its land bank.

About The Reviewer

Eric Wakker is Co-Founder and Director of Corporate Sustainability at Aidenvironment Asia. He and his team partnered up with Bumitama Agri in May 2014 at the invitation of Mr. Lim Gunawan Hariyanto. This assurance statement thus represents a second party point of view.



Furthermore, I am informed that the company's board had in recent months agreed to modify investment procedures to include due diligence on the seller and land contractors, to determine whether they are related to any substantial shareholders or (former) staff, and to review the risk impact of purchase besides legality, cost and benefits and investment returns. This is a welcomed decision and I recommend that its enforcement is reported on under the Ethics and Marketplace section of the next sustainability report.

I mentioned above that Bumitama's conservation deliverables do not stop short with forest protection within the company's own land bank boundaries. In 2015, the Group committed to partnership approaches to landscapes within and around its boundaries. I consider Bumitama Agri currently an absolute forerunner in this field. Through partnerships, the company will be working to close co-management agreements with three villages in Ketapang district. These villages' applications for social forestry cover a total area of over 8,700 hectares of forestland that have already been approved. Located in the vicinity of its plantations, the company's Corporate Social Responsibility (CSR) team will assist the villages in developing sustainable forest restoration and forest use for years to come. This is exactly how companies should fulfill their responsibility as corporate citizens, by helping to restore diversity in landscapes that have become overly dominated by oil palm.

With such approaches, the integration of the Group's sustainability agenda with its CSR programme, is almost inevitable. As this report shows, such integration has not yet been realised and both are still largely separate streams of work. Integration of work at headquarters and in the field is encouraged to enable local development in ever more comprehensive and consistent ways.






With its broad scope, this sustainability report is as material as can be reasonably expected. It is inevitably limited in terms of completeness and responsiveness. It is best read in combination with other information sources. As mentioned in my previous review, the company's revamped website was a welcome improvement. Responses to NGOs' allegations, complaints and other issues of concern are posted in the "Latest Sustainability Updates" section. A further 'upgrade' is expected with the launch of Bumitama's own sustainability 'dashboard' which will complement the valuable overview data presented in this report.








My organisation looks forward to continue our collaboration with Bumitama Agri, to help guide it through immediate sustainability challenges and to help it deliver longer-term sustainable development on the ground, not merely within its own concession boundaries but especially also in the larger physical and social landscapes in which Bumitama's plantation companies operate.

ERIC WAKKER

18 April 2019

OBJECTIVES AND TARGETS

	What we want to achieve	Target*	Status
	SOCIAL RESPONSIBILITY AND LABOUR		
	Expansion with Free, Prior and Informed Consent from local communities*	<p>For new planting, documentation evidencing FPIC during agreement making process when legal, customary or user rights to land are negotiated</p> <p>No complaints relating to existing planting are received</p>	<p>Ongoing progress:</p> <p>Checklist for 2018 P&C will be used as a part of land release and NPP process</p> <p>Conducted review on execution of SIA plans for three certified units; areas for improvement identified by reviewer will be analysed and programmes implemented. Will continue with other certified units</p> <p>Currently in a facilitated process to resolve an RSPO complaint related to allocation of plasma</p>
	Reduction in accident rates	<p>40 % reduction</p> <p>Zero Fatalities</p>	<p>Not achieved</p> <p>Not achieved</p> <p>Special Task Force appointed to address accidents root causes</p> <p>Performance score of Regional Heads and Area Controllers linked to accidents</p>
	Breast feeding facilities available to all employees	<p>2020</p> <p>2023</p>	<p>Ongoing progress:</p> <p>Introduced at two pilot sites in March 2019</p> <p>In all certified units</p> <p>Company wide</p>
	Bumitama schools to be teaching and promoting Adiwiyata green education introduced by Indonesia in 2006 in support of the United Nations	<p>2018</p> <p>2022</p>	<p>Two schools recognised at district level and three at provincial level. (One school recognised at national level in 2019)</p> <p>a) Twelve of Bumitama schools at district level; and</p> <p>b) Three external schools at district level</p>
	Independent smallholders programme*	<p>Every certified mill with 3rd party supply has a group of smallholders in productivity improvement and certification programme</p>	<p>Ongoing progress:</p> <p>One certified mill in Central Kalimantan have one smallholder group achieved certification in 2018</p> <p>Two groups smallholders undergoing productivity improvement in 2nd mill in Central Kalimantan in 2019 and certification by 2020; and 150 smallholders undergoing productivity improvement in two mills in West Kalimantan in 2019</p> <p>To identify another two groups of smallholders for two mills; one for Central Kalimantan and one for Riau for 2020</p>

	What we want to achieve	Target*	Status
	ENVIRONMENTAL RESPONSIBILITY		
	Reduce use of rodenticides. 60% of total planted areas to be rodenticide-free	2020	42% of all planted areas rodenticide free in 2018
	Protect and increase Kalimantan's orangutan population	Continue expanding partnerships with reputable orangutan conservation organisations	Continuing partnership with Yayasan IAR Indonesia (YIARI) on the Bumitama Biodiversity and Community Project (BBCP) New collaboration with Orangutan Foundation UK on reforestation in Central Kalimantan Partnership in PONGO Alliance
	Reduction of Greenhouse gases	Measure and publish our carbon footprint and develop a reduction strategy by 2019 Complete construction of two methane capture facilities by 2021 Trials for alternative GHG emissions reduction through composting and solid separation by 2020	In progress, target revised from 2017 Construction in progress for one facility Three mills completed testing and operational
	New developments with HCV and HCS Approach assessments**	New RSPO P&C 2018 requires integrated HCV and HCSA Review execution and effectiveness of SIA for certified units Review execution and effectiveness of HCV, HCS and peat management for all units	HCS/HCV/SEIA/peat delineation assessments conducted for all units purchased from 2015 to 2018 Integrated HCV & HCS assessment will be conducted for all existing PTs whose HCV had not been ALS review and which have not completed planting Conducted review of Social Impact Assessment (SIA) for 33 villages spread across three PTs in 2018
	GOVERNANCE AND ACCOUNTABILITY		
	Business Ethics Policy to guide business and employees	Completed 2018	Business Ethics Policy available in Bahasa & English on our website New Anti-corruption & Anti-bribery policy published and available in Bahasa and English on our website
	Land Acquisition policy update	Completed 2018	Land acquisition policy expanded beyond Interested Person Transactions (IPT) definition of relevant regulations and quality review of contractors as means of improving corporate governance
	Complete traceability of FFB supplied by independent smallholders (external)	2019	In progress: 70.4% of external FFB mapped Developed risk map to help manage the risk of traceability gap

These objectives and targets are based on the Sustainability Policy.

* Some targets have been revised for greater clarity.

** These commitments are ongoing. We will report on compliance in future sustainability reports.

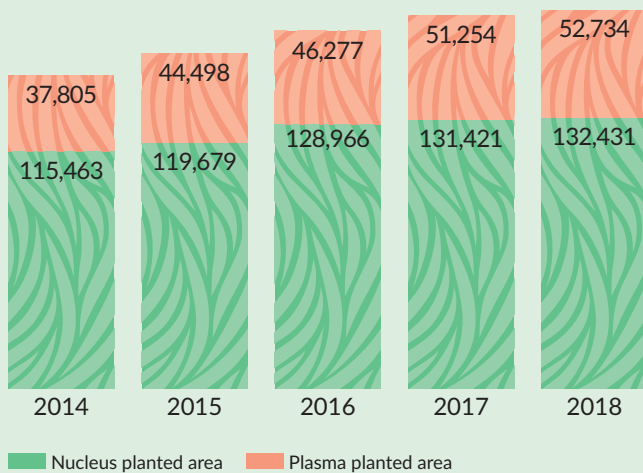
ABOUT BUMITAMA

OUR BUSINESS IN BRIEF

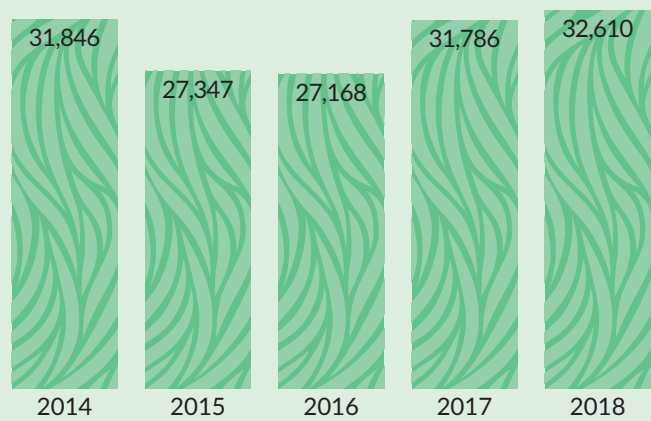
Bumitama Agri Ltd. (Bumitama) is a leading producer of crude palm oil (CPO) and palm kernel (PK). Supported by more than 32,000 employees, our oil palm operations cover a total planted area of 185,165 hectares, with 9,434 hectares

of infrastructure, across the Indonesian provinces of Central Kalimantan, West Kalimantan and Riau. Around 28% of our total planted area is set aside for smallholders under our plasma programme. We also own and operate 14 CPO mills with a combined processing capacity of 5.67 million tonnes of fresh fruit bunches (FFB) per year.

PLANTED AREA (HA)



TOTAL NUMBER OF EMPLOYEES



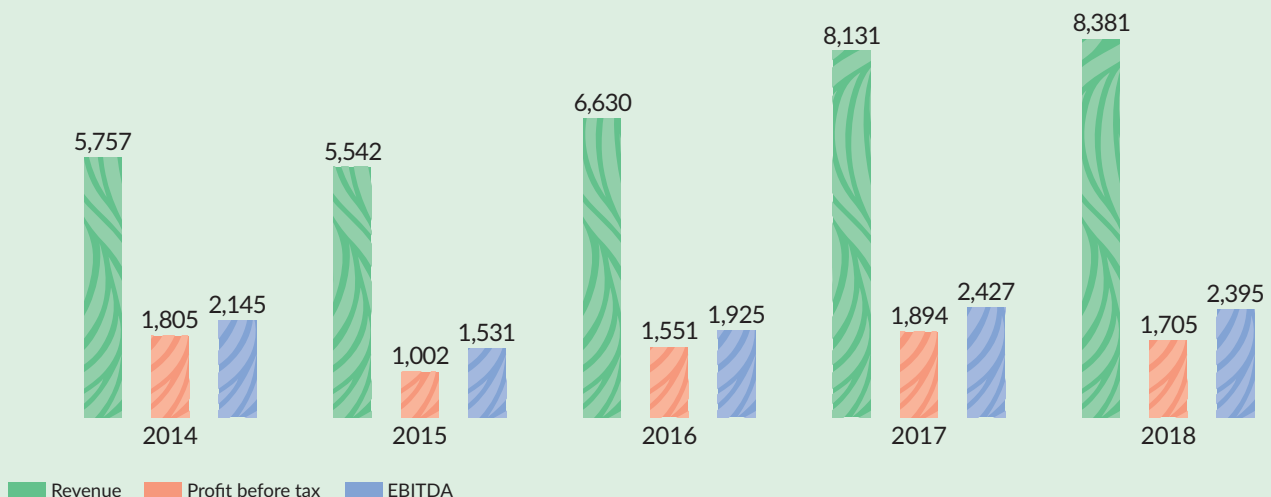
FINANCIAL INFORMATION AND OWNERSHIP STRUCTURE

Our 2018 revenue increased for the fourth year running: growing 3.1% from IDR 8,131 billion in FY2017, to IDR 8,381 billion at the end of the current reporting period. This performance was driven by our increased production of CPO and PK, despite the lower selling price compared to 2017. We meanwhile saw a slight reduction in pre-tax profits of 10% to IDR 1,705 billion (IDR 1,894 billion

in FY2017), as a result of weakening of commodity prices of the industry, especially during the last quarter.

Bumitama is listed on the Singapore Stock Exchange under the stock symbol SGX:P8Z. As at year-end 2018, 51.92% of Bumitama shares are held by companies controlled by the Lim family. A further 32.00% are controlled by IOI Corporation and its majority shareholders, the Lee family. For a full overview of Bumitama's company structure, please see our Annual Report pages 84-86.

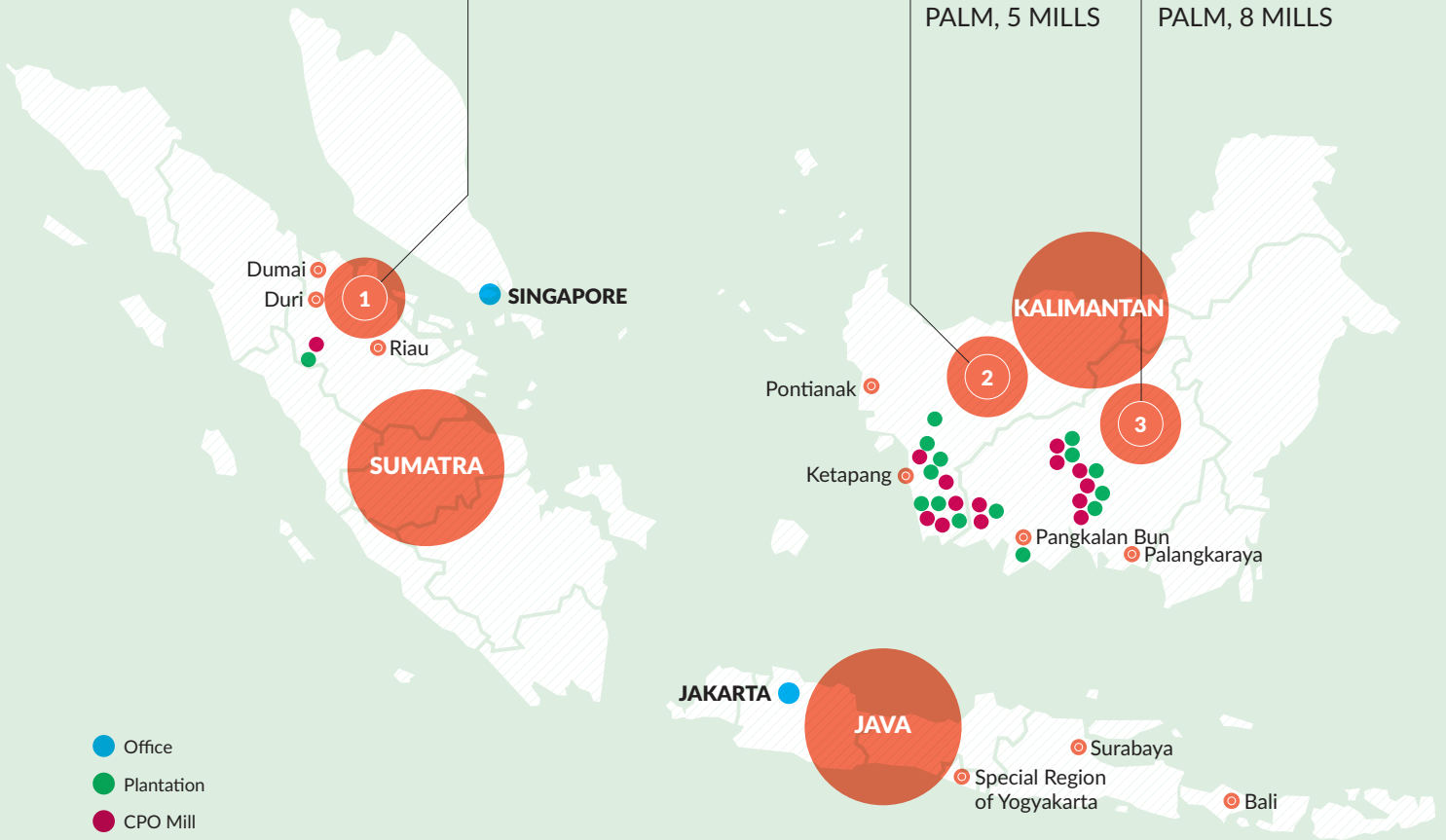
FINANCIAL OVERVIEW (IDR BILLION)



RIAU
AROUND 2,000
HA PLANTED OIL
PALM, 1 MILL

**WEST
KALIMANTAN**
AROUND
77,000 HA
PLANTED OIL
PALM, 5 MILLS

**CENTRAL
KALIMANTAN**
AROUND
105,000 HA
PLANTED OIL
PALM, 8 MILLS



ABOUT BUMITAMA

OPERATIONS

Bumitama has a total land bank of 234,000 hectares located across the Indonesian provinces of Central Kalimantan, West Kalimantan and Riau. Our nine plantation operations – comprising 132,431 hectares of nucleus estates and 52,734 hectares of plasma area – produced more than 3.3 million metric tonnes of FFB in 2018, which were then processed by our 14 mills. Just over 71% of the FFB processed at our mills in 2018 was cultivated in our plantations and plasma schemes, while approximately 29% was sourced from independent outgrowers and smallholders.

At Bumitama we continue to explore new opportunities to grow our land bank, but acknowledge that our options are limited. Suitable land is a finite resource, and we are steadfast in our commitment to avoid development on peat or in High Carbon Stock (HCS) or High Conservation Value (HCV) landscapes.

We have therefore made it a priority to boost the productivity of our existing land to drive continual and sustainable growth for our business. Bumitama agronomists are collaborating with our Research, Quality Control and Engineering Department to develop new ways to increase yields, oil content and FFB weight. These methods include using high-yielding seed varieties to boost production, and we are in the process of finalising a tissue culture centre in Palangkaraya, which will be operational by year-end 2019. Bumitama does not use genetically modified planting material.

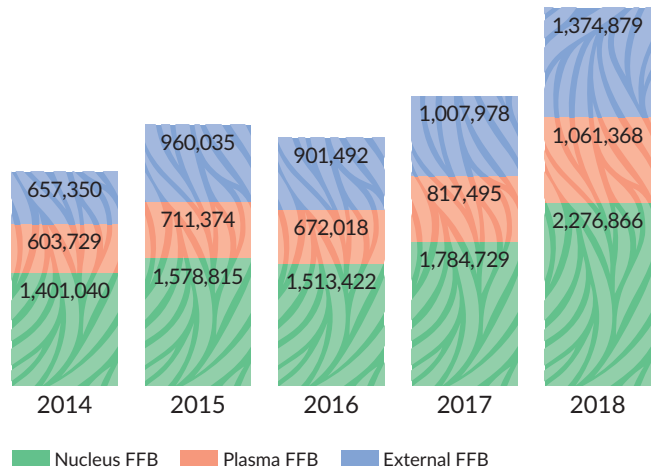
SUPPLIERS AND TRACEABILITY TO PLANTATION

Securing greater transparency in our supply chain has remained a key focus throughout the reporting period, as we continue working to ensure that the FFB we source is both legal and traceable back to the plantation. Achieving full traceability is complicated, however, as FFB is sourced from different types and levels of supplier.

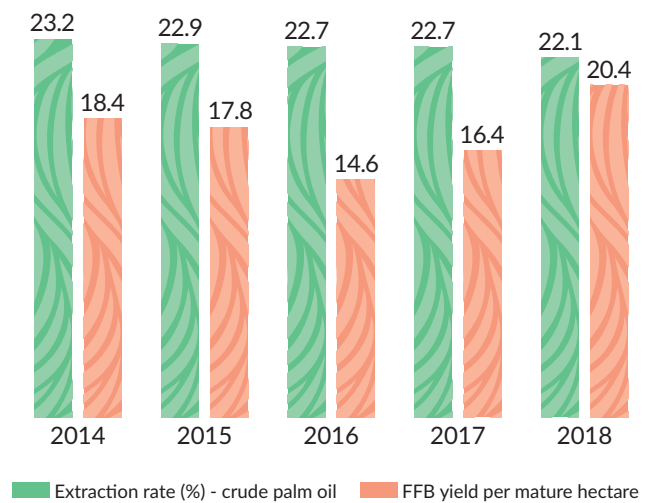
Besides processing our own fruits (48.3%), Bumitama mills also engage with three main FFB sources: associated smallholders operating under a plasma scheme (22.5% of FFB processed in 2018), larger outgrowers that do not have their own mill (11.2% FFB), and independent smallholders (defined as growers with less than 50 hectares of planted area – 18% FFB). Most externally sourced FFB is delivered directly to our mills by smallholders and outgrowers. A smaller proportion of our fruit supply is sourced from FFB traders.

To increase transparency within this complex supplier ecosystem, we set a target date of December 2017 for all FFB processed by our mills to be traceable to our own estates and associated plasma schemes. We also committed to documenting and verifying that all external FFB purchased by Bumitama is sourced from legal and responsible suppliers. Achieving this important milestone will create greater transparency in our supply chain and, in the process, minimise the risk that our operations and products contribute to deforestation and exploitation.

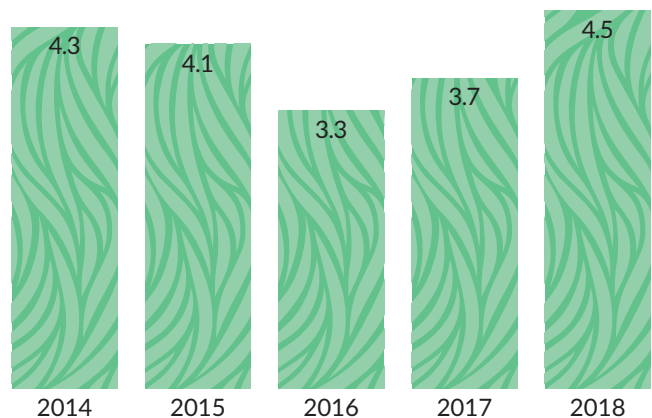
FFB PROCESSED (MT)



PRODUCTIVITY



CPO YIELD PER MATURE HECTARE



This exercise has proven more complex than initially anticipated and much effort is required to trace all FFB to plantations. We have experienced high turnover among our external suppliers over the last year, and a considerable number of previously-mapped suppliers have changed. Consequently, we have had to recognise that 100% traceability will not be achievable, but we expect to be close to 95% at all times. By the end of 2018 we have been able to trace 91.4% of all FFB processed in our mills, and expect to close the remaining gaps in 2019. We are working closely with our commercial team on a new process which will make identification of suppliers more effective, and have put new documentation in place for a more systematic collection of information.

To address the risk involved in the 5% traceability gap, as well as assessing new suppliers, we have created a risk map that harvests publicly available information on current palm oil concessions overlaid with various land zoning data. This helps us to classify smallholder plantations into different risk grades. When suppliers fill in the coordinates of their house or plantation, we can evaluate the risk of the particular supplier and engage in an appropriate programme.

We have been piloting and testing the use of this map. Once completed, we will update our stakeholders on the practicality of this method.

During the first phase of this traceability initiative, which was launched in 2016, we used purchase documents to map the supplier base of each of our own CPO mills. Since then, we have collected comprehensive information about our third-party suppliers. This is providing us with more accurate and detailed data for analysing and verifying FFB traceability among our supply chain partners.

We have also created a specialised team to socialise our Sustainability Policy among FFB suppliers. The team proactively engages independent outgrowers and traders to

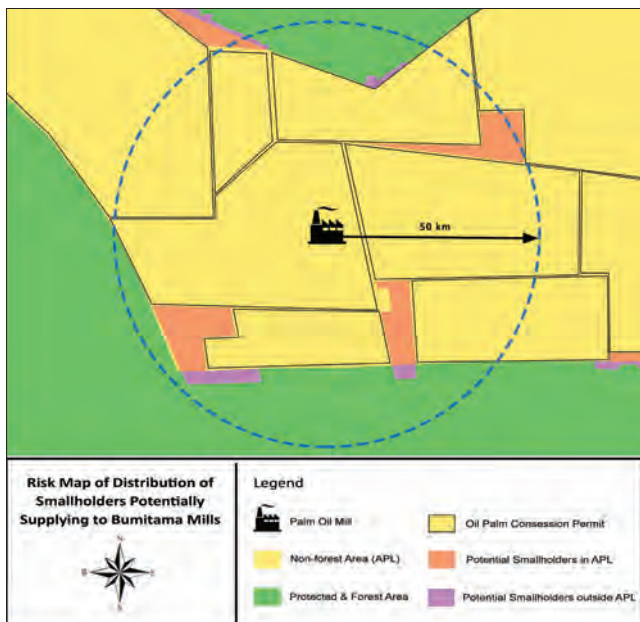
help them understand how the traceability process works, and what they can do to ensure their fruit meets our standards.

Smallholders continue to respond positively to the initial socialisation of our Sustainability Policy. There is a growing awareness about the importance of ensuring traceability and legality, while interested smallholders have combined into groups and collectives to undertake projects relating to productivity enhancement, legality and certification.

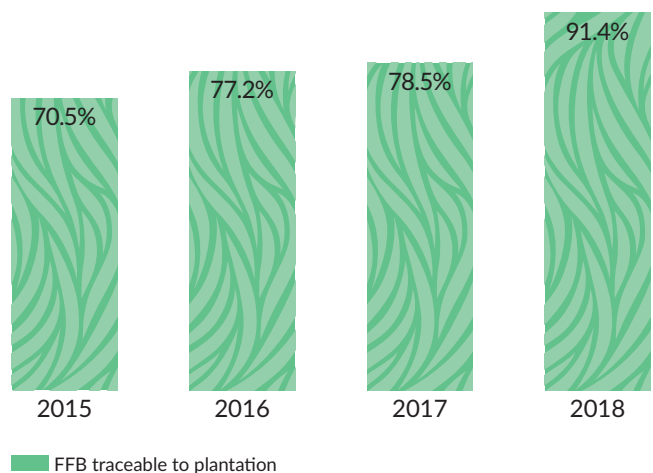
CUSTOMERS

All palm oil produced by our mills is sold domestically to refineries. Refineries then convert CPO into a broad variety of refined products that are used in foods, oleochemicals and biofuels. As our mills are not equipped with kernel crushers, we sell our palm kernels to local crushing plants that process them into palm kernel oil (PKO). PKO is primarily used in the manufacture of personal care, household and confectionary products. We currently trade our Roundtable on Sustainable Palm Oil (RSPO)-certified palm oil through the RSPO certificate trading system, but we are also certified for trade under the Mass Balance system. As the proportion of our RSPO-certified CPO increases, we will consider setting up segregated mills.

As we expect more mills to be certified under the RSPO Principles and Criteria (P&C) scheme, we will look into setting up segregation of certified material for buyers in our supply chain, and segregated mills in 2019. Discussion is underway with the commercial teams to conduct feasibility studies for mills that have been certified. However, Bumitama may find it challenging to meet its timetable as per the Annual Communications of Progress (ACOP), owing to the need for additional processes to accommodate the new RSPO P&C 2018 requirements. This will likely impact the certification timebound plan, especially if review by the HCV Assessor Licensing Scheme (ALS) is necessary.



FFB TRACEABILITY



OUR APPROACH TO SUSTAINABILITY

With changes to the RSPO P&C, ongoing NGO campaigns and an ever-changing regulatory environment, we are reviewing our approach to sustainability on an ongoing basis. A member of the Roundtable on Sustainable Palm Oil (RSPO) since 2007, Bumitama¹ is currently a member of the No Deforestation Task Force (NDTF), the Peatlands Working Group, the Human Rights Working Group and Biodiversity High Conservation Value Working Group. Bumitama also sits on the RSPO Complaints Panel. We are supported by our implementation partner, Aidenvironment, to ensure that our policies and programmes are aligned to current stakeholder expectations.

SUSTAINABILITY POLICY IMPLEMENTATION


Our vision is to be a world leading palm oil producer through both continuous improvement and our focus on product

quality, cost efficiency, sustainability and growth. Our mission is to share the value we create across all our stakeholder groups: increasing returns for our shareholders, enhancing benefits and quality of life for our employees, and improving the welfare of our local communities and the environment.

As one of Indonesia's leading palm oil producers, we acknowledge that our industry needs to do more to address legitimate concerns about the links between the cultivation of oil palm and deforestation, climate change and social injustice.

Our Sustainability Policy sets out our overall principles and commitments to produce palm oil sustainably and responsibly, and has been developed in line with our core focus on People, Planet and Prosperity.

OUR SUSTAINABILITY POLICY COVERS:

 <p>Forest conservation and sustainable land use</p> <p>No peat; protection of High Conservation Values (HCV) and High Carbon Stock (HCS) landscapes; reduction of chemical fertiliser and pesticide usage; elimination of paraquat; and prevention of fire.</p>	 <p>Respect for local community rights</p> <p>Recognition of Free, Prior and Informed Consent (FPIC); efforts towards sustainable economic development models; and fair, transparent and accountable partnerships with plasma smallholders.</p>	 <p>Respect for human rights in the workplace</p> <p>Recognition of International Labour Organization (ILO) core conventions and the United Nations (UN) Universal Declaration on Human Rights – including a ban on forced and child labour, elimination of discrimination, provision of fair wages and working hours, and respect for freedom of association; the provision of a healthy and safe working environment; and ethical conduct, including efforts to eliminate corruption.</p>	 <p>Traceability and responsible sourcing</p> <p>Tracking and monitoring land development in sensitive areas; ensuring that all FFB processed is traceable to our own estates, plasma smallholders, local traders and independent smallholders; and ensuring that FFB is purchased from legal and responsible sources.</p>
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¹ Our subsidiary Bumitama Gunajaya Agro held the membership until 2013.

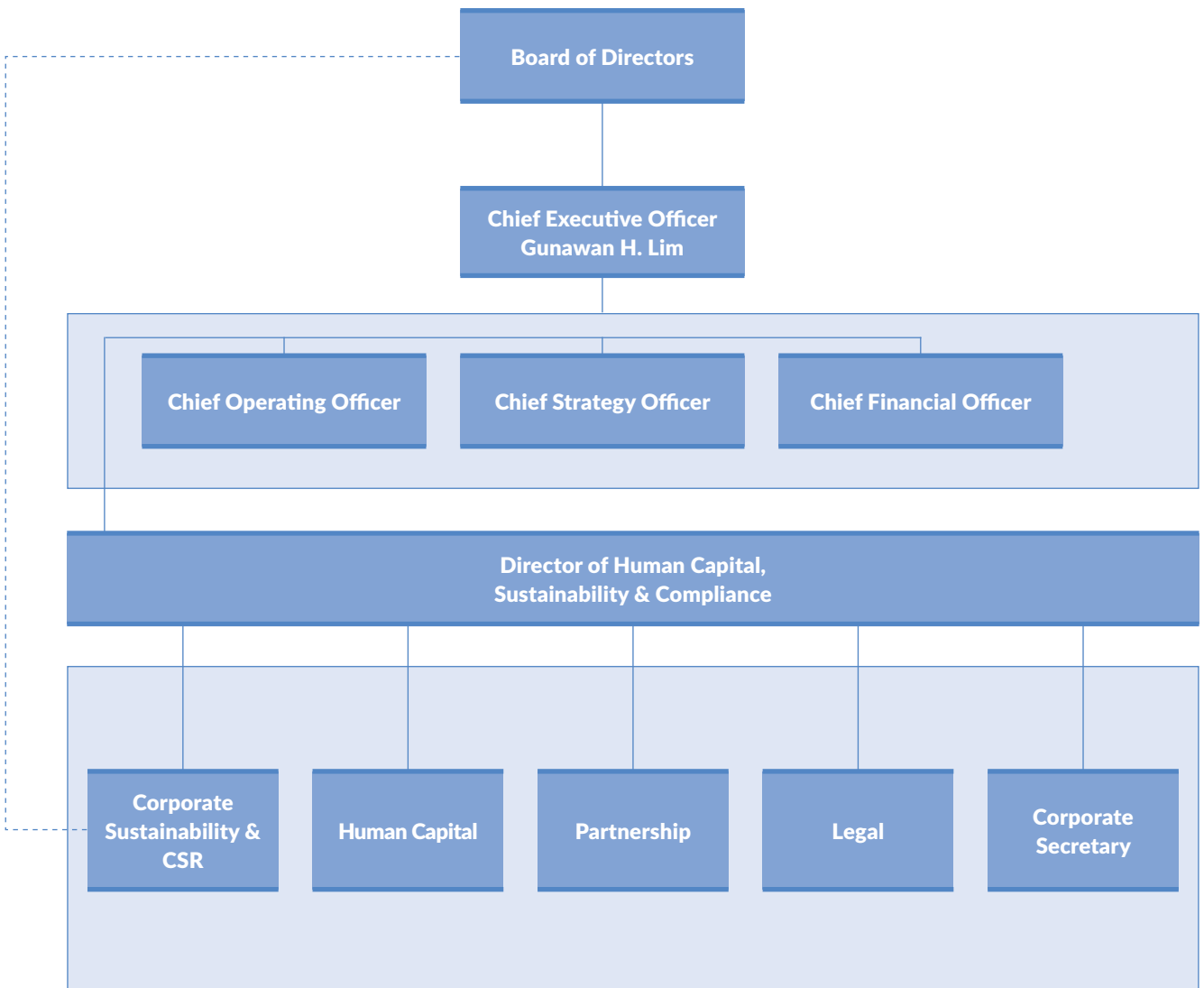
While our Sustainability Policy remains unchanged, our ongoing impact assessments guide our priorities. In past years, we have placed extra emphasis on the children of our employees and the facilities we provide, ensuring these are kept at least in compliance with government-prescribed standards. We also look into the latest developments in palm oil (as in P&C 2018) in the field of labour and human rights, such as gender equality and breastfeeding programmes for our employees as well as taking a closer look at the social impact assessments (SIA) management and reviewing its impact to the community and workers. We conducted a SIA review end of last year for three PTs and 33 villages and the initial report showed overall good effort and results on SIA management.

There remain gaps, however, and our commitment to address these will guide our Corporate Social Responsibility (CSR) and workers' programme for the next three years. We are putting forward mitigation plans on gaps for phased implementation

into the PTs concerned and continue to conduct such exercises for other PTs that are undergoing certification. We are also tracing all our HCV and HCS areas and will share information on HCVs outside of our operation permits (Hak Guna Usaha (HGU)) and the state of these HCVs and our plans going forward.

Our senior management team retains oversight of our Sustainability Policy and continues to guide its implementation. Our CEO and Chairman is deeply involved in our internal and external engagements. Since the November incident at PT KML, and also in response to the changes introduced by the new RSPO P&C 2018, our operations have been reminded to check with the Sustainability Department prior to any land clearing activities. This non-compliance was due to movement in the management and also due the more advisory role undertaken by the Sustainability department since middle of 2017 as part of decentralisation within the whole Company.

BUMITAMA SUSTAINABILITY TEAM STRUCTURE



OUR APPROACH TO SUSTAINABILITY

BUILDING BLOCKS OF SUSTAINABILITY POLICY IMPLEMENTATION

Socialisation, Mapping, Baselines and Monitoring Framework

- Stakeholders mapping
- Data, permits and documentation for HGU, location permit and operational plantation permits (Ijin Usaha Perkebunan (IUP))
- GIS mapping & groundtruthing
- Identification of HCV, HCS, peat, and SIA management plan
- Socialisation of initial data and plans
- Sustainability management plan and key performance indicator (KPI) scorecard, monitoring & reporting system

Sustainability Performance Enhancement

- Assess, monitor and maintain HCV, HCS, peat and conservation areas
- FPIC & community consultation
- Supply chain review for plasma and smallholders
- GHG reduction programme
- Stakeholder engagement & capacity building
- Economic development & alternative livelihood for communities
- Complaints handling & whistle blowing

System Development & Certification

- RSPO
- ISPO
- ISCC
- ISO
- OSHA
- GMP
- KELAS KEBUN
- BMP
- Proper
- RKL/RPL
- UKL/UPL

Innovation & Continuous Improvement

- Forest conservation & sustainable land use
- GHG/Emissions reduction
- Biodiversity study & conservation
- Community Livelihood & CSR programme
- Traceability & responsible sourcing
- Yield enhancement through special agronomy programme
- New geographic information system (GIS) technology for mapping
- SMART monitoring & reporting

“NO DEFORESTATION, NO PEAT, NO EXPLOITATION”

SUSTAINABILITY POLICY SOCIALIZATION

Parties	Objectives	Method	Completion target
Employees and Workers	Additional socialisation of our Policy	Morning briefing, in-house magazine and classroom training	Ongoing
Plasma smallholders	Traceability/Certification	Mill records to include source of FFB; training of cooperatives & staff.	YE 2017/2024
Outgrowers, independent smallholders & traders	Legal sourcing	Purchase documents and mill records (including location, names of farmers, collectors and traders, legal status of land/size and length of tenure); educate on deforestation and peat; no purchase from areas opened with the two above conditions after target date.	YE 2017 for certified mills Complete 95% by YE 2019 for others and usage of risk assessment maps
Contractors	Work within policy	Contract and briefing.	Ongoing
Consultants, bankers & other stakeholders	Doing business sustainably	Share policy during first meeting or policy and report provided.	Ongoing
Buyers	Ensure conformity with buyers' policy	Periodic meetings and communication.	Ongoing

CERTIFICATION AND ENGAGEMENT

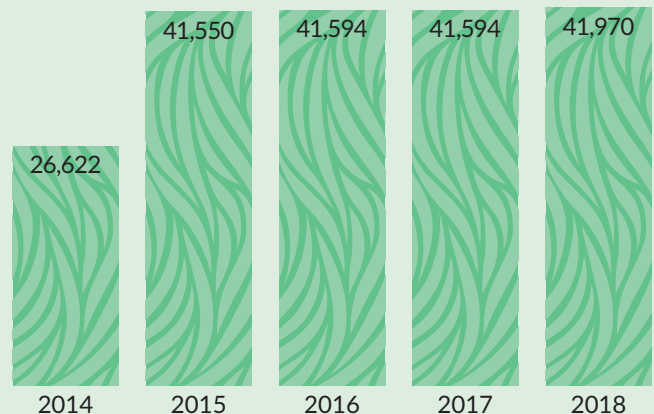
To raise our sustainability performance to a world-class level, we have adopted a comprehensive certification programme that combines international and local Indonesian standards. This keeps our sustainability objectives aligned across the organisation and ensures that our efforts are both meaningful and ambitious. With the introduction of the new RSPO P&C, adopted in late 2018, we will be raising the bar even further, and ensuring that we remain responsive to the expectations of our stakeholders. Among other areas, the new standard includes a stronger commitment to no deforestation through the adoption of the High Carbon Stock Approach, higher standards for labour rights, and better transparency and accountability. This is well-aligned with our own Sustainability and No Deforestation, No Peat, No Exploitation (NDPE) policy.

ROUNDTABLE ON SUSTAINABLE PALM OIL

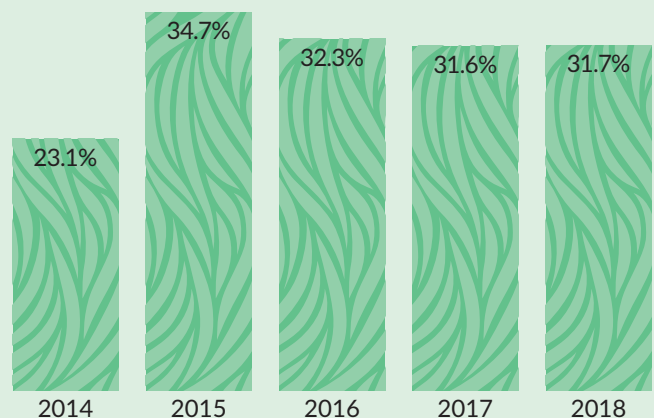
Certification against the RSPO Principles & Criteria was completed for our first two mills in 2014. Subject to obtaining HGUs, we remain on track to complete certification for all our older mills in 2020, our newest mill in Bukit Belaban by 2021 and all independent and plasma smallholders by 2024. As at 31 December 2018, four of our mills have achieved certification and 31.7% of our total planted area is RSPO certified.

Four mills have been certified in 2018. We planned to certify five, but a change in the RSPO Supply Chain Certification System caused one of our mills to lose eligibility for certification as an independent mill. We will conduct an audit following the RSPO P&C certification to get this mill certified again. The certified area and volume rose to 41,970 hectares and 167,284 Metric Tonnes (MT) respectively. In early 2019 we received two certificates, one for our only mill in Sumatra, and one for a mill in West Kalimantan, bringing our total number of certified mills to six. With the two new certificates, 1,899 hectares (HA) of plasma smallholders land was also RSPO certified.

RSPO CERTIFIED AREA (HA)



RSPO CERTIFIED AREA (%)



1 Our subsidiary Bumitama Gunajaya Agro held the membership until 2013.

OUR APPROACH TO SUSTAINABILITY

ANNUAL CERTIFICATION PLAN

Management unit	Mill	Supply base	Location	Timebound plan
PT. Windu Nabatindo Lestari (WNL)	Pundu Nabatindo Mill	PT Windu Nabatindo Lestari (WNL)	Central Kalimantan	2014
		Koperasi Harapan Abadi		2019
		Independent Smallholders (Kelompok Tani Tenera)		2018
		PT Fajar Bumi Nabati (FBI)		2019
		PT Gemilang Subur Maju (GSM)		stage 1
PT Windu Nabatindo Lestari (WNL)	Katari Agro Mill	PT Windu Nabatindo Lestari (WNL)	Central Kalimantan	2016
PT Karya Makmur Bahagia (KMB)	Gunung Makmur Mill	PT Karya Makmur Bahagia (KMB)	Central Kalimantan	2014
		Koperasi Unit Desa Mekar Jaya (KMB)		2019
		Koperasi Unit Desa Sekar Tani (KMB)		
		Koperasi Unit Desa Lestari (KMB)		
		Koperasi Usaha Bersama (KMB)		
		Koperasi Makarti Jaya (KMB)		
		Koperasi Marga Rahayu (KMB)		
		Koperasi Tani Santoso (KMB)		
		PT Tanah Tani Lestari (TTL)		2020
		Koperasi Hapakat (TTL)		
		Koperasi Rika Bersatu (TTL)		
		Koperasi Usaha Bersama (TTL)		
		Koperasi Eka Kaharap (TTL)		
		Koperasi Berkat Usaha Bersama (TTL)		
Koperasi Bina Tani (TTL)				
Independent Smallholders (Kelompok Tani Karya Bersama)	2019			
PT Karya Makmur Bahagia (KMB)	Bukit Makmur Mill	PT Karya Makmur Bahagia (KMB)	Central Kalimantan	2019
		PT Langgeng Makmur Sejahtera (LMS)		2020
		Koperasi Telawang Bersatu		
		Koperasi Hinje Ate		
PT Windu Nabatindo Abadi (WNA)	Sungai Cempaga Mill	PT Windu Nabatindo Abadi (WNA)	Central Kalimantan	2019
		PT Nabatindo Karya Utama (NKU)		
		KSU Sehati Pundu		
		Koperasi Koling Hapakat		
PT Windu Nabatindo Abadi (WNA)	Selucing Agro Mill	PT Windu Nabatindo Sejahtera (WNS)	Central Kalimantan	2020
PT Bumitama Gunajaya Abadi (BGB)	Kotawaringin Mill	PT Bumitama Gunajaya Abadi (BGB)	Central Kalimantan	2020
PT Bumitama Gunajaya Abadi (BGB)	Lamandau Mill	PT Bumitama Gunajaya Abadi (BGB)	Central Kalimantan	2020
		PT Andalan Sukses Makmur (ASMR)		
		PT Investa Karya Bakti (IKB)		
PT Gunajaya Karya Gemilang (GKG)	Kendawangan Mill	PT Gunajaya Karya Gemilang (GKG)	West Kalimantan	2016
		PT Gunajaya Ketapang Sentosa (GKS)		2019
		Koperasi Serba Usaha Bersama		
		Koperasi Serba Usaha Karya Bersama		
		Koperasi Binasari		
		Koperasi Perkebunan Fajar Mandiri		
Koperasi Rimba Sari				
PT Agro Sejahtera Mandiri (ASM)	Pembangunan Raya Mill	PT Agro Sejahtera Mandiri	West Kalimantan	2019
		PT Gunajaya Harapan Lestari		2020
PT. Karya Bakti Agro Sejahtera (KBAS)	Sungai Rasau Mill	PT Karya Bakti Agro Sejahtera (KBAS)	West Kalimantan	2019
		PT Agriplus		2021
PT Ladang Sawit Mas (LSM)	Bukit Tunggal Jaya Mill	PT Ladang Sawit Mas (LSM)	West Kalimantan	2020
		PT Lestari Gemilang Intisawit (LGI)		
		PT Agro Manunggal Sawitindo (AMS)		
		PT Karya Makmur Langgeng (KML)		
		PT Sejahtera Sawit Lestari (SSL)		
		PT Nabati Agro Subur (NAS)		
		PT Gemilang Makmur Subur (GMS)		
		PT Damai Agro Sejahtera (DAS)		2021 or One year after getting the HGU
PT Rohul Sawit Industri (RSI)	Suka Damai Mill	PT Masuba Citra Mandiri (MCM)	Riau	2019
		Koperasi Karya Melayu Sejati		
PT Inti Sawit Lestari (ISL)	Bukit Belaban Mill	PT Sentosa Prima Agro (SPA)	West Kalimantan	2021
		PT Raya Sawit Manunggal (RSM)		
		PT Wahana Hijau Indah (WHI)		
		PT Hungarindo Persada (HPE)		2022 or One year after getting the HGU

Note: We will proceed with the certification of FFB suppliers in stages, and alongside the socialisation process described in the section on smallholders.

Bumitama is aiming to achieve RSPO certification for all of its HGU-licensed plantation companies by 2021. Concessions that have not yet been planted, or that have not secured the HGU land title, will be certified one year after obtaining HGU, or at latest by the end of 2024.

We may need to reconsider our targets, however, as the new P&C require PTs that have not yet been certified to undergo

an HCV ALS review. We are waiting for additional information from the NDTF – but considering the added requirement for certification in the new RSPO 2018 P&C, our estimation is that certification for 2019 may be delayed by at least another year. This will mean additional time and cost for certification, as well as the need to tackle the Remediation and Compensation Procedure (RaCP) issue, which now has a very long processing time and has been made more complex under the new P&C.

ISPO CERTIFICATION STATUS

Audit ISPO	PT KMB, PT. GKG, PT. GKS	PT. ASM	PT. WNL, PT RSI & MCM	PT LSM, PT LGI, PT NAS, PT ISL	PT. BGB	PT. WNA, PT. NKU, PT KBAS	Other PTs
Stage	Certified	Stage 2 Pending release by the ISPO commission	Stage 2 Will proceed to certification upon rectifying audit gaps	Stage 2 Will continue certification together with RSPO certification according to the timebound plan	Stage 2 Preparing for re-audit	Stage 1 Will continue certification together with RSPO certification according to the timebound plan	- Will enter Stage 1 when required criteria have been secured

ISPO, ISO AND ISCC

The Indonesian Sustainable Palm Oil (ISPO) certification scheme was launched as a mandatory requirement for Indonesian oil palm growers in 2012. As at the end of 2018, we have three PTs certified under ISPO. The chart above shows the progress of the various PTs for ISPO certification.

We are training teams in preparation for certification against the International Sustainability & Carbon Certification (ISCC). ISCC allows CPO producers to export CPO to the European market for use in biofuels under the Renewable Energy Directives (RED) scheme. We will proceed to certification in accordance with the RED criteria. These include a requirement that biogas methane capture facilities are installed to achieve prescribed greenhouse gas (GHG) reduction levels. We currently have one biogas methane capture facility in development and will proceed to certification, depending on the status of the proposed EU ban on the import of CPO for biodiesel.

We certified our PT RSI mill in 2018, and are also working towards ISO 14001 certification for two further mills.

Program Kinerja Pengelolaan Lingkungan Perusahaan (PROPER), or the Health, Safety and Environmental Aspect Assessment, is the Indonesian Government’s programme for rating corporate performance related to environmental and social sustainability management. PROPER is conducted on a yearly basis by the Indonesian Environmental Agency, or Kementerian Lingkungan Hidup dan Kehutanan (KLHK). It

assesses companies' performance through a transparency mechanism and public disclosure process, including how they manage environmental and biodiversity issues, community development, hazardous waste disposal and energy utilisation. PROPER performance is then classified into five categories: Black as the lowest, followed by Red, Green, Blue and Gold as the highest category. At the end of 2018, Bumitama has three PTs in the Blue certification category, with other PTs awaiting notification of their KLHK assessments.



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BIODIVERSITY PROTECTION

We develop our land in accordance with international and industry best practices to avoid impacting existing ecosystems. New developments must adhere to the RSPO New Plantings Procedure (NPP) and undergo High Conservation Value (HCV) assessments, Social Impact Assessments (SIA) and High Carbon Stock (HCS) Approach assessments. Peat delineation tests and land cover, land use and land use change analyses must also be completed to identify locations with HCV, HCS and peat. These assessments and analyses guide the development of planting plans for our new concessions to ensure that HCV, HCS and peat land areas are not planted with oil palm.

NPPs are posted for stakeholder consultation on the RSPO website, and our HCV assessments are undertaken in compliance with the HCV Resource Network Assessor Licensing Scheme. We are also committed to following the HCS Approach peer review process. Our first assessment of PT Gemilang Makmur Subur (GMS), West Kalimantan, was reviewed and approved in February of 2017. The assessment covered 5,216 hectares, of which the assessors recommended that 1,434 hectares (27.5%) be set aside for conservation due to the presence of peat or HCVs, and/or an HCS classification.

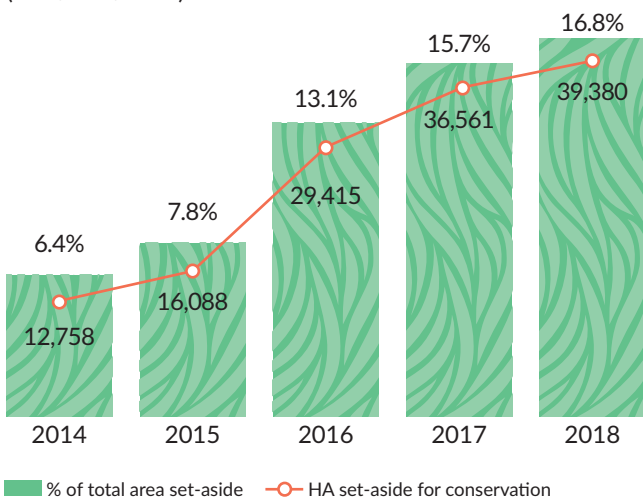
The HCSA peer review and HCV Assessor Licensing Scheme were merged in 2018. Going forward, we will use the integrated assessment manual and the combined quality control system employed by the two organisations.

CONSERVATION SET-ASIDE AREAS

Year/Ha	HCV	HCS	Peat	Total	Total Area
2014*	4,689 (2.9%)	8,459 (4.3%)	2,682** (1.9%)	12,758 (6.4%)	199,000 (100%)
2016	18,745 (8.3%)	9,238 (4.1%)	4,113*** (1.8%)	29,415 (13.1%)	225,000 (100%)
2018	23,780 (10.2%)	11,599 (5.0%)	6,115*** (2.6%)	39,380 (16.8%)	234,000 (100%)

- * Area of 5 PTs only
- ** Overlaps with the HCS
- *** 2,682 hectares overlap with HCS

CONSERVATION AREA SET-ASIDE (HA, %) (HCV/HCS/PEAT)



CONSERVATION INITIATIVES

Our operations are located within, or adjacent to some of the richest and most biologically diverse ecosystems on the planet. Our NDPE commitment recognises the vital role Bumitama has to play in protecting and – where possible – enhancing these landscapes.

We do not and will not operate within nationally or internationally recognised protected areas or national parks, and we seek to protect and enhance the population of species identified as endangered or vulnerable under the national laws of Indonesia and the International Union for Conservation of Nature (IUCN) Red List.

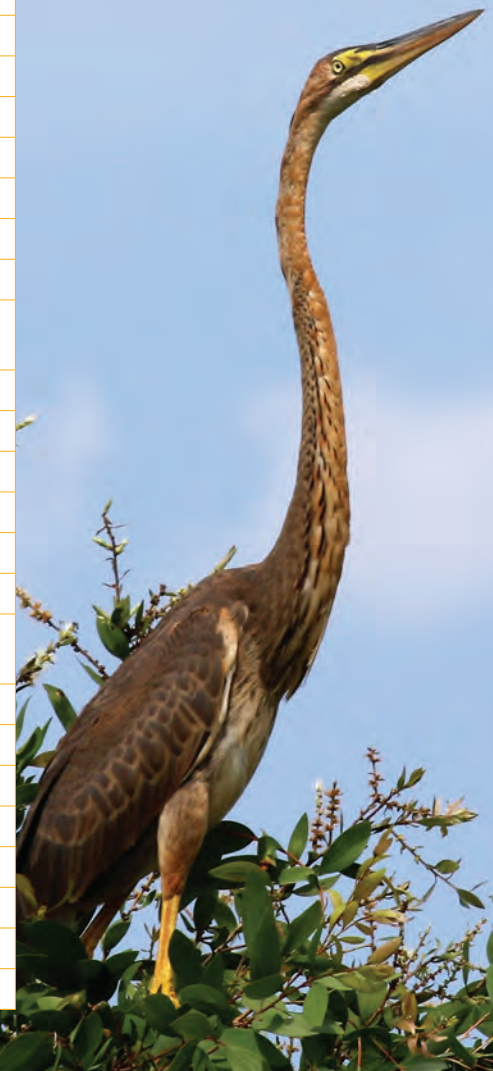
Hunting is banned in all Bumitama concessions, and we engage with local communities to prevent the hunting of vulnerable species in surrounding areas. Bumitama also proactively engages with local communities, consulting with them and inviting their participation in all our landscape planning processes. Their invaluable input enables us to better identify and safeguard critical ecosystem services, cultural HCVs and local biodiversity.



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ENDANGERED SPECIES IN REGIONS WHERE WE OPERATE

IUCN status	West Kalimantan and Riau	Central Kalimantan
Critically endangered		
<i>Pongo pygmaeus</i> (Bornean Orangutan)	☑*	☑
<i>Manis javanica</i> (Sunda Pangolin)	☑	☑
Endangered		
<i>Hylobates agilis</i> (Agile Gibbon)	☑	☑
<i>Nasalis larvatus</i> (Proboscis Monkey)		☑
<i>Ciconia stormi</i> (Storm's Stork)	☑	
<i>Tomistoma schlegelii</i> (False Gharial)	☑	
Vulnerable		
<i>Acridotheres javanicus</i> (Javan Myna)		☑
<i>Aonyx cinerea</i> (Asian Small-clawed Otter)		☑
<i>Cervus timorensis</i> (Javan Rusa)		☑
<i>Cervus unicolor</i> (Sambar Deer)	☑	☑
<i>Chloropsis sonnerati</i> (Greater Green Leafbird)		☑
<i>Cuora amboinensis</i> (Amboina box turtle)	☑	☑
<i>Ducula pickeringii</i> (Grey Imperial Pigeon)	☑	☑
<i>Helarctos malayanus</i> (Sun Bear)	☑	☑
<i>Leptoptilos javanicus</i> (Lesser Adjutant)	☑	☑
<i>Lutra perspicillata</i> (Smooth-coated Otter)		☑
<i>Macaca nemestrina</i> (Southern Pig-tailed Macaque)		☑
<i>Neofelis nebulosa</i> (Clouded Leopard)		☑
<i>Numenius arquata</i> (Eurasian Curlew)		☑
<i>Nycticebus coucang</i> / <i>Nycticebus brachycephalus</i> (Sunda Slow Loris)		☑
<i>Nycticebus menagensis</i> (Philippine Slow Loris)	☑	
<i>Ophiophagus Hannah</i> (King Cobra)	☑	☑
<i>Pardofelis marmorata</i> (Marbled Cat)		☑
<i>Presbytis cristata</i> (Silvered Leaf-monkey)		☑
<i>Presbytis frontata</i> (White-fronted Surili)		☑
<i>Presbytis hosei</i> (Hose's Langur)		☑
<i>Prionailurus bengalensis</i> / <i>Felis bengalensis</i> (Leopard Cat)		☑
<i>Pycnonotus zeylanicus</i> (Strawheaded Bulbul)	☑	☑
<i>Rheithrosciurus macrotis</i> (Tufted Ground Squirrel)		☑
<i>Setornis criniger</i> (Hook-billed Bulbul)		☑
<i>Siebenrockiella crassicollis</i> (Black Marsh Turtle)	☑	☑
<i>Sus barbatus</i> (Bornean Bearded Pig)	☑	☑
<i>Tarsius bancanus</i> (Horsfield's Tarsier)	☑	☑
<i>Tomistoma schlegelii</i> (False Gharial)		☑
<i>Treron capellei</i> (Large Green Pigeon)	☑	☑



* *Pongo pygmaeus* (Bornean Orangutan) is not found in Sumatra - Riau

Building a wildlife corridor in West Kalimantan

Bumitama's PT Gemilang Makmur Subur (PT GMS) and PT Damai Agro Sejahtera (PT DAS) plantations are located in the Ketapang district of West Kalimantan, an area in which rapid development of agriculture and extraction concessions has led to fragmented forest patches that threaten both landscapes and local animal species. These include an estimated population of 900–1,200 Bornean orangutans.

To address this challenge, the Bumitama Biodiversity and Community Project (BBCP) – co-founded in 2016 with IDH, The Sustainable Trade Initiative – has been exploring ways in which wildlife protection can co-exist with sustainable production as part of a collaborative and landscape-based approach to land use.

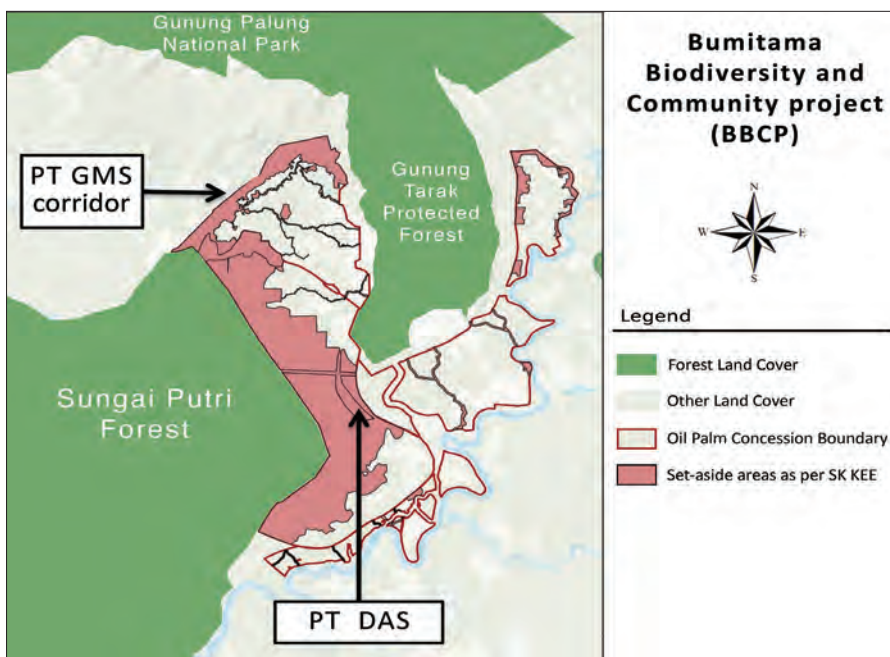
The primary objective of the project has been to secure the rehabilitation and management of a wildlife corridor for orangutans and other species. The projected corridor will include approximately 1,100 hectares belonging to our PT GMS concession. Following our acquisition of neighbouring PT DAS we have been offered an additional 6,500 hectares for potential conservation.

To support this project, we have partnered with Yayasan International Animal Rescue Indonesia (YIARI), which provides the BBCP with on-the-ground technical expertise in wildlife conservation. This resulted in a series of jointly-undertaken assessments in 2017 to understand the ecological context and level of ecological degradation in the area, and provided a starting point to plan the corridor. By connecting our existing HCV/HCS areas, the corridor will play a critical role in our ongoing orangutan conservation efforts and, we hope, encourage expansion in the population of both orangutans and other species dependent on the area.



Bumitama has engaged extensively with local communities to protect the corridor area from encroachment, risk of fires, and illegal logging, mining or hunting. The regular patrolling of the area is done by a trained team of forest rangers, consisting of two leaders and five rangers from the neighbouring villages. The team have been specially trained for patrolling and monitoring activities in collaboration with YIARI. Training sessions were conducted throughout 2018 focused on the following areas:

- Consultation and training on human-orangutan conflict. To safely handle any potential conflicts with orangutans, our plantation staff and the ranger team were trained by professionals from YIARI to safely manage any such situations. This often involved making hand-held firecracker cannons (manufactured from bamboo and tin, using calcium carbide to produce a loud noise when detonated), to steer orangutans back into the forest or away from humans and/or farms.



- Spatial Monitoring and Reporting Tools (SMART) software training to help with managing conservation areas, conducting patrols, identifying threats and monitoring animals. This tool provides the ranger team with a platform to quickly and easily record and analyse data, producing maps and reports from the patrolling inspections. Collecting precise data while patrolling is crucial for monitoring of the project activities and provides inputs for implementation of new ones.

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- Training in the use and installation of camera traps. Camera traps are one of most effective ways of conducting wildlife surveys or behavioural studies, providing information on the presence or absence of a wide variety of wildlife. We hope the use of camera traps will provide baseline biodiversity data for the conservation area, enable regular monitoring of biodiversity status, and supply necessary information for improving our conservation management activities. We will share our preliminary findings by the middle of 2019.

To preserve the last track of a possible corridor between Sungai Putri and Gunung Tarak with connections to the National Park of Gunung Palung, it is essential to achieve understanding amongst all stakeholders that share the landscape. This has been especially relevant to a neighbouring industrial plantation forest (*Hutan Tanaman Industri* (HTI)) company PT Mohairson Pawan Khatulistiwa which holds permits to most of the Sungai Putri forest and a bauxite mining company called PT Laman Mining, whose permits overlap with the permit of PT GMS, including the conservation areas identified as the wildlife corridor. Recognising the potential risks, we have intensified our engagement with the governmental institutions on protection of the corridor and the main instrument for legalisation of these areas has been the Essential Ecosystem Area (*Kawasan Ekosistem Esensial* (KEE)) concept, which we have received the 'surat kuasa' from the previous governor of West Kalimantan. Apparently the lack of implementation instruction from the Provincial Government had this matter on pending mode. The absence of legal protection has been exploited in July 2018, when a mining road was cleared across the PT GMS conservation areas.

To prevent any further clearing we have engaged with and mobilised the local community, governmental institutions, other companies sharing the same landscape, as well as fellow NGOs. This has brought the representatives of PT Laman Mining to the table, who pledged to maintain and protect the existence of the KEE areas and to build a crossing for the wildlife to be able to safely navigate to the other side of the road, when migrating across the landscape, to and from the Sungai Putri forest.

Reforestation in Central Kalimantan

Over the past years, we have seen good progress in our forest rehabilitation programme in Central Kalimantan. We work with local communities to restore set-aside areas that have been degraded or burned. Due to strong community interest, we have been able to link to additional projects, especially in harvesting of non-timber forest products (see page 32), planting of mangroves to prevent coastal erosion, and support for the Lamandau Wildlife Reserve in partnership with the Orangutan Foundation UK and with the help of children from our schools.

While the programme has been a great success overall, illegal clearing remains a significant challenge. In 2018, our monitoring efforts identified land clearing in the buffer zone of Tanjung Puting National Park (TNTP), just outside PT



ASMR. Our team approached the owner, a local entrepreneur, together with the village head and National Park management. We have engaged with him and made him aware that opening the buffer zone of national park is a legal violation, and that Bumitama's policy would bar any fruit purchase from developments that cleared forest or peat. The issue has yet to be resolved, but we continue engagement to persuade the landowner to stop any planting and rehabilitate the land.

SAFEGUARDING THE LEGAL STATUS OF PROTECTED AREAS THROUGH THE WEST KALIMANTAN GREEN GROWTH PLAN

The West Kalimantan Governor put forward a plan in 2017 to protect the state's rainforest under the title "Green Growth Plan based on Production, Protection and Inclusion". The plan outlines how a sustainable solution can be reached through a consensus-based process that engages all local stakeholders, including NGOs, the private sector, communities, local government and financial institutions. The purpose is to facilitate sustainable growth that eliminates poverty in rural regions, while improving biodiversity, social inclusion, and efficient use of natural resources through landscape planning. The Green Growth Plan has officially recognised the BBCP as one of the initiatives that are being implemented in the West Kalimantan, awarding it with a status of KEE by the decision of the West Kalimantan Governor.

Under the Green Growth Plan, the protection of conservation areas (including HCS, HCV and peat) would be driven by a landscape approach, while a jurisdictional approach would be developed to facilitate the appropriate planning of production areas. Through implementation of green growth strategies, forests are allowed to be set aside for conservation while an enabling legal framework and law enforcement is put into place. The provincial government is currently drafting regulations that would provide it with a more robust legal process in the future, ensuring that large set-aside areas do not become classified as abandoned land and thereby risk repossession by regional government for future development.

FIRE MONITORING AND PREVENTION

Fires are a major threat to our productivity, our biodiversity conservation efforts, as well as to the health and safety of our employees and surrounding communities. We enforce a strict zero-fire policy within all our operations. Fires can also cause and contribute to the severe haze issues experienced across the Southeast-Asia region as smoke is carried by the wind.

There has thankfully been no reoccurrence of the type of violent fires seen in 2014–15, which struck both Kalimantan and Sumatra. However, we recorded an increased number of fires in 2018 compared to previous years. These were all minor incidents and were rapidly addressed, with the exception of the fire detailed below.

HECTARES BURNT



	2014	2015	2016	2017	2018
Total Number of fires	181	204	5	13	35

2018	Total fire occurrences / ha	Fire occurrences in planted area / ha	Fire occurrences outside of our area / ha
All PTs	35 / 350 ha	22 / 315 ha	13 / 35 ha
PT SSL 11-18 August	1 / 262ha	1 / 262 ha	-
Without SSL	34 / 88 ha	21/ 53 ha	13 / 35 ha



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The most severe fire occurred on 11 August 2018 in our subsidiary PT SSL. The fire was extinguished later that day, but our patrols identified hotspots in three other locations. We attempted to tackle the outbreak with the assistance of village fire-fighting teams and local government and military teams. Unfortunately, a combination of dry vegetation, peat soils and strong winds caused the fire to take hold and spread to the western parts of our concession. Water from a nearby stream was used to flood the entire area, which finally extinguished the fire. The fire damaged approximately 260 hectares of land.

We recorded 12 small fires outside of our concessions. Most were insignificant and quickly extinguished, and were discovered by our hotspot monitoring system. This has been happening due to the shifting cultivation by local communities. According to Indonesian regulations in some Indonesian constituencies, the use of fire to clear areas smaller than two hectares is still permitted, as long as the village and local police receive prior notification. To eliminate this practice we have attempted to engage directly with the village where fires appeared in the previous year, offering both training and alternative land clearing methods to the community. In 2018, we partnered with 40 villages across our operations under the *Desa Bebas Api* programme, to encourage their communities to refrain from using fire. The 35 villages that were successful throughout the year 2018 in adopting alternative land clearing measures and achieving no burning in their land were honoured with in-kind rewards, such as firefighting equipment and portable agricultural machinery.

We have also established precautionary measures that enable us to give special attention to fire-prone areas. Such measures include the mapping of concession areas based on the level of potential fire risk posed by their respective land cover types (peat or mineral, clear or scrub, boundary areas, forest conservation areas and water sources).

Bumitama has an established command and control centre to ensure efficient communication in the event of fire-related emergencies, and we regularly conduct patrols of at-risk areas. We have also improved accessibility to water sources throughout our operations. We have improved our water management by building water collection ponds, by planting bamboo to promote water retention in ponds, and by ensuring plentiful water reserves in anticipation of dry spells and firefighting emergencies.

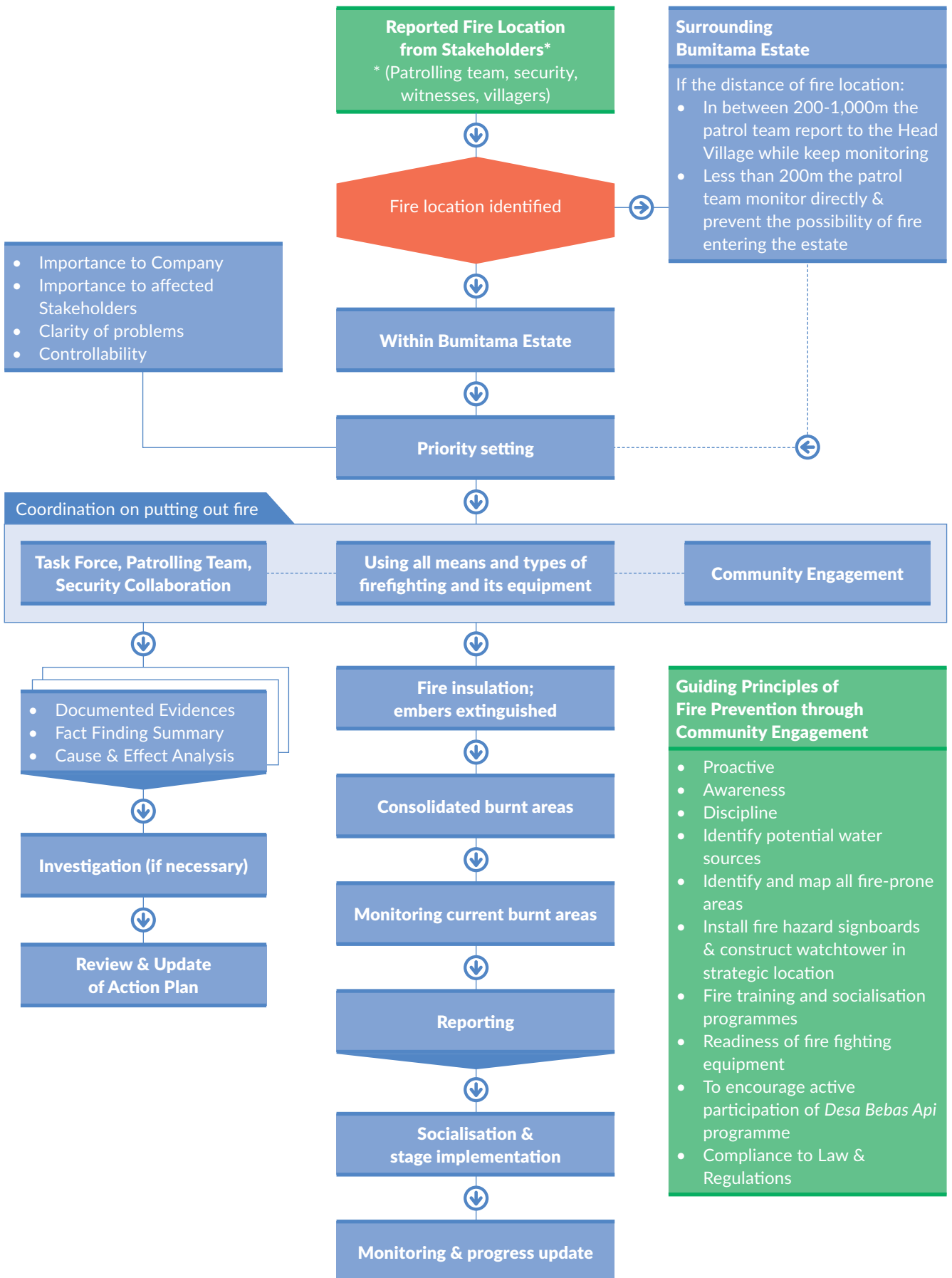
To mitigate the impact and minimise the risk of fires in the future, we will improve our current fire prevention processes by:

- Advancing emergency fire response teams. Each plantation unit has to conduct training exercises and firefighting simulations, with relevant institutions such as Manggala Agni, at least two times a year.
- Conducting fire patrols and utilising our Early Warning System (EWS) to predict potential fires. The EWS will provide us with pre-warning for mobilisation of equipment before fires happen. This is conducted through analysis of weather data, monitoring regional water reservoirs' status, and studying trends in hotspots and community land clearing activities. We analyse NASA's Fire Information for Resource Management System (FIRMS) for hotspot occurrence and work with an expert organisation on analysis of near-real time satellite imagery. Resulting information is reported to our on-site team that are dispatched to the location, using drones for ground-checking of any fire hazards.
- Testing of fire-fighting equipment. To make sure necessary equipment is always ready to be used in fire-fighting, regular inspections and assessments are needed to repair or replace unsuitable equipment.
- Collaborating with the local communities and government institutions and agencies to ensure that the land in the area of our operations is safe from forest and plantation fires.

Our firefighting capacity has been strengthened through our partnership with Manggala Agni, a Ministry of Forestry fire unit that specialises in forest fire prevention and control. In 16 separate training sessions conducted across our operations in 2018, a total of 885 of Bumitama employees and 252 people from the local community were trained on fire management.

Bumitama continues to take an integrated and inclusive approach to fire risk and prevention through a range of CSR programmes. We lend tractors to local communities so they can clear land without resorting to burning. Acting on recommendations developed through our discussions with regional government experts, we have also provided villages with manual clearing tools.

BUMITAMA FIRE MANAGEMENT FLOW CHART



ENVIRONMENT

GREENHOUSE GAS ACCOUNTABILITY

We recognise that climate change, accompanied by fluctuating weather patterns, poses a major risk to the livelihoods and safety of communities, to fragile ecosystems and to agricultural supply chains. Being part of the solution and mitigating the impact of this major challenge is central to our sustainability strategy. We remain committed to progressively reducing our greenhouse gas (GHG) emissions.

To establish a baseline, we used the RSPO PalmGHG methodology to estimate our 2016 GHG emissions at our certified plantations. In 2018, we estimated an emissions intensity of 1.56 tonnes of carbon dioxide equivalent per tonne of CPO produced, which we believe to be comparable to peers in Indonesia, based on publicly available disclosures. We will try to expand the scope of our GHG assessment, providing more complete information by assessing the GHG emissions of the units preparing for certification, before completing the assessment of whole of our operations.

Bumitama's long-term plan to reduce GHG emissions consists of the following steps:

- The first stage and the most effective carbon emissions reduction strategy is not to deforest and not to open peat. This strategy had already been implemented with the implementation of NDPE.
- The second stage of carbon emissions reduction is via the reduction of methane emissions in the factories through either methane capture facilities or through composting, belt press and other methods of extracting the solids from the ponds in the mills.
- The third stage will be looking at alternative energy source like solar panel as replacement for generator sets or using biodiesel to motor the generator sets.

LAND USE CHANGE ANALYSIS TO MINIMISE FUTURE EMISSIONS

Around 29% of emissions from our four certified units derive from previous land clearances. This is low relative to many of our peers, as much of the certified area was planted on scrub and grassland. As we proceed to certify some newer developments, especially those planted after the release of our 2015 Sustainability Policy, we would expect this figure to decrease. Newer plantations were planted in accordance with the preceding Land Use Change Analysis (LUCA) assessment, conducted as a part of the RSPO New Planting Procedure, and are often carbon negative. Since 2015 this process resulted in carbon savings of more than 22,000 MT CO₂ across 4 of our concessions. In these plantations the sequestration from oil palm will be higher than that of the site's vegetation prior to planting.

METHANE CAPTURE OF POME EMISSIONS

35% of our emissions are methane from palm oil mill effluent (POME). We are looking to reduce or eliminate POME emissions through biogas facilities that convert methane into electricity that can be channelled back into the local electricity grid. We have partnered with waste treatment and integrated power solution providers to develop a biogas plant Riau – Sumatra, which we expect to be completed by the end of 2019. We estimate that the facility will be able to reduce emissions from POME by 90% when fully operational. Similar facilities will progressively be developed at other mills, depending on viability of turning the resulted biogas methane to electricity to be fed to the grid and operating the facilities in partnership with expert organisations. Where not appropriate, we will install other devices to treat our wastewater and to reduce the emanating GHG. Bumitama currently operates three composting sites, with plans to install another seven during 2019. In 2020 we will trial solid separation technology that will help us to further decrease GHG emissions further.

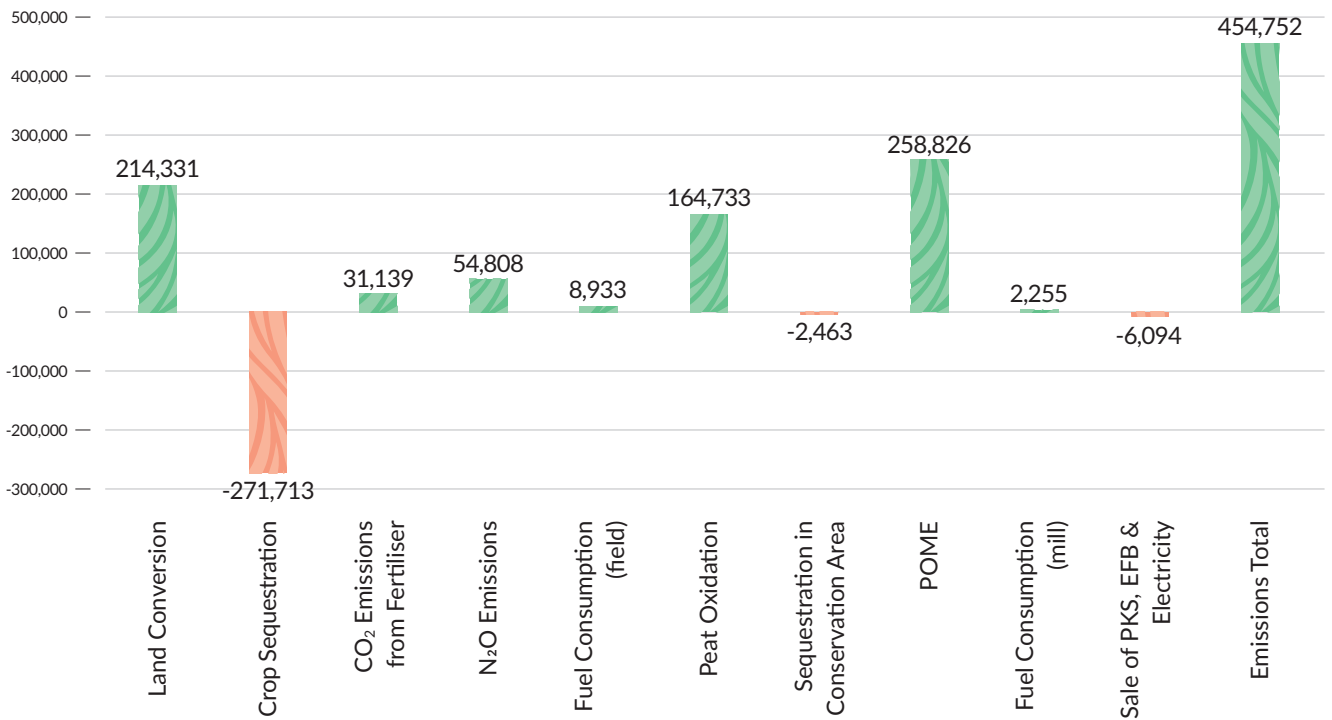
MAPPING AND RESTORATION OF PEAT AREAS

22% our emissions derive from peat oxidation from existing plantings. We stand by our clear commitment to stop new plantation developments taking place on peat, to restore peatland where possible, and to apply best management practices in existing plantings. We have made considerable headway in reviewing our land maps and soil classifications in the past year. A review of our four certified concessions identified 4,725 hectares of planted areas as peat, or roughly 9% of the total surveyed area. In addition, we have identified 1,431 hectares of peat as part of our NPPs, which will be set aside for conservation. This represents approximately 8 % of the land assessed under NPP. We will continue these mapping exercises to complete an overview of peat areas within our concessions over the coming years.

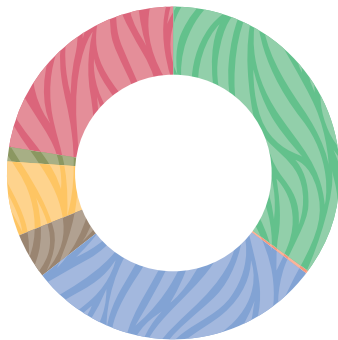
We are also reviewing options for restoring peatland in PT DAS as part of the Bumitama Biodiversity and Community Project. We are currently reviewing partnership options with an NGO that specialises in peat management. Our aim is to develop a holistic water management, vegetation restoration and set-aside conservation plan that focuses on the area of PT DAS as a part of the wider landscape of around 150,000 hectares of peat-swam forests, protected forest and national parklands. We will begin with revision of current water management practices to prevent excessive draining or flooding in certain areas, while allowing for natural rehabilitation to occur. Progress updates will be shared regularly through our website.

We are also seeking to reduce emissions from the use and transport of fertilisers by using the by-products of CPO production as both an alternative fertiliser and ground cover.

EMISSIONS SOURCES AND SINKS (MT CO₂e/YEAR)

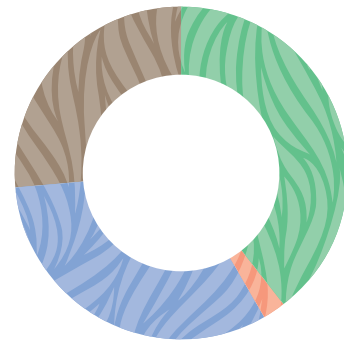


GROSS EMISSIONS BY TYPE



Type	%
POME	35.2
Fuel Consumption (mill)	0.3
Grid Utilisation	0.0
Land Conversion	29.2
CO ₂ Emissions from Fertiliser	4.2
N ₂ O Emissions	7.5
Fuel Consumption (field)	1.2
Peat Oxidation	22.4

EMISSIONS BY SOURCE



Source	%
Field Emissions (Own Crop)	39.9
Field Emissions (Group)	2.2
Field Emissions (3rd Party)	32.4
Mill Emissions	26.5

ENVIRONMENT

INTEGRATED PEST MANAGEMENT AND CHEMICALS

Bumitama is fully committed to minimising and mitigating the impact of chemical pesticides on the environment. Our integrated pest management strategy prioritises the use of natural and mechanical pest reduction solutions. These include introducing biological controls, such as beneficial plants, pathogens and bacteria, as well as conserving healthy populations of natural predators. We also use manual techniques and mechanical traps.

We only use synthetic pesticides as a last resort, and only under the strictest conditions. For instance, we may use small volumes of rodenticide, insecticide or fungicide to contain a particularly aggressive outbreak.

Bumitama has also made a commitment to eliminate all highly toxic, bio-accumulative and/or persistent pesticides across all operations. We have already eliminated the use of paraquat, a herbicide flagged for concern by our stakeholders due to its high toxicity levels and links to potential risks associated with mishandling or lack of protective equipment. Our phase-out of paraquat was completed in 2016.

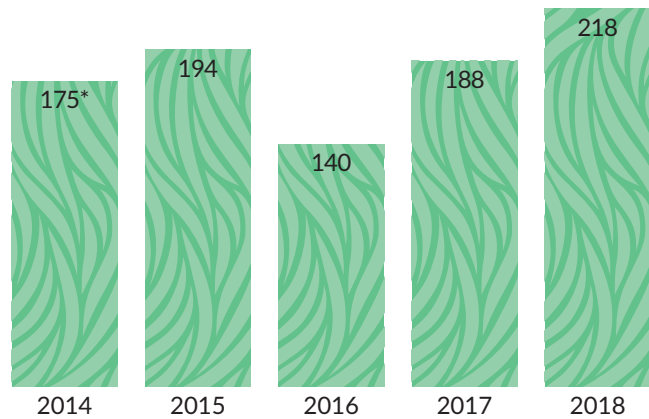
Every Bumitama worker that handles hazardous chemicals is required to undergo extensive and continuing safety training. We provide all workers with personal protective equipment (PPE), and showering is compulsory at the end of each shift. All hazardous chemicals are kept in locked storage facilities in accordance with the RSPO P&C. We also ensure that women who are pregnant or nursing do not work in or near areas where pesticides are used or stored.

To better understand our chemical footprint, we now monitor herbicide-derived toxicity levels per planted area. Toxicity levels tend to fluctuate widely due to the cyclical nature of plantings, as young plantings require greater amounts of herbicide, sporadic outbreak, overly wet areas and so on, so measuring toxicity in this way enables us to more accurately monitor the impact of the chemicals we do use over the long term.

We have also adopted a zero-waste management policy for CPO production to reduce our reliance on inorganic fertiliser. Empty Fruit Bunch (EFB) are recycled as ground cover material and organic fertiliser, and are also used alongside POME for composting in plantations. As with pesticides, fertiliser usage is highly dependent on the age profile of plantations – with maturing plantings requiring increased nutrient input up to its fifth year.

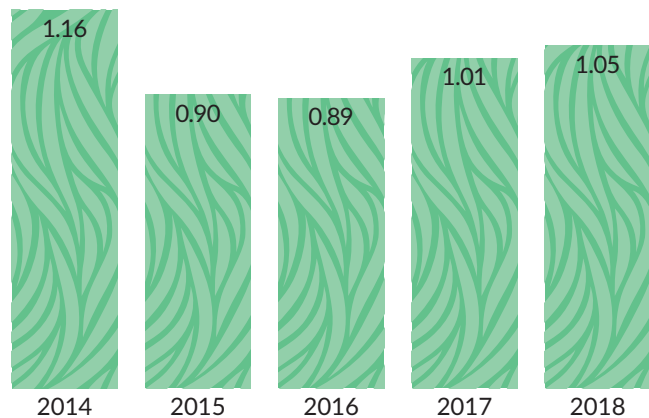
Herbicides currently used in Bumitama's operations (including plasma area)
Dimethylamine 2-4 D
Glufosinate-ammonium
Indaziflam
Glyphosate
Metsulfuron methyl
Triclopyr butotyl
Alkylaryl poliglikol eter
2-sodium amine

TOXICITY UNITS PER PLANTED HECTARE (LD50/HA)



* 2014 data are based on an estimate

INORGANIC FERTILISER USAGE (MT/HA)



BUMITAMA OWL PROGRAMME

To minimise the use of rodenticides, we have introduced an owl programme across our plantations. This is an ecologically sound method, and is also much more economical, with costs around 30% of conventional means of crop protection. In the last two years, the amount of birdhouses installed has increased from 400 to nearly 1,000, recording 245 adult owls and 136 chicks in 2018. When the rodent population drops, the owls will migrate, so our team have to monitor closely to ensure that the

houses are moved accordingly. We always prepare more houses to encourage owls to come and move the growing chicks into the new houses of their own and to take into account the migration.

This programme has resulted in considerable reduction in areas using rodenticides. In 2017 74% of our operations applied chemicals to prevent rodent damage, almost half of our planted areas are now rodenticide-free. We hope to reduce use of these chemicals by 60% across all of our plantations by 2020.



ENVIRONMENT

PROTECTING LOCAL WATER SOURCES

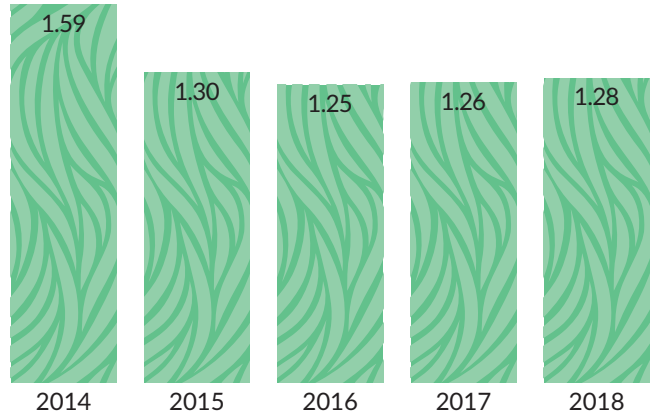
We recognise that clean, accessible water is a precious and increasingly scarce natural resource. It sustains the wellbeing of communities, wildlife and aquatic ecosystems. It is also vital for our palm oil mill operations and the health of our employees. Minimising the risk of surface water or ground water contamination, either through fertiliser misuse or other field practices, is therefore a priority area in our Sustainability Policy.

We do not have enough detailed data on water risks in and around our concessions. We were scheduled to develop plans to document and monitor the impact of our activities on surface and ground water quality and availability, as well as to identify mitigation strategies. We are currently trying to partner up with expert organisations and to potentially secure funding. This would allow us to better understand the existing water risks and develop long-term management plans that would benefit stakeholders inside and beyond the boundaries of our operations.

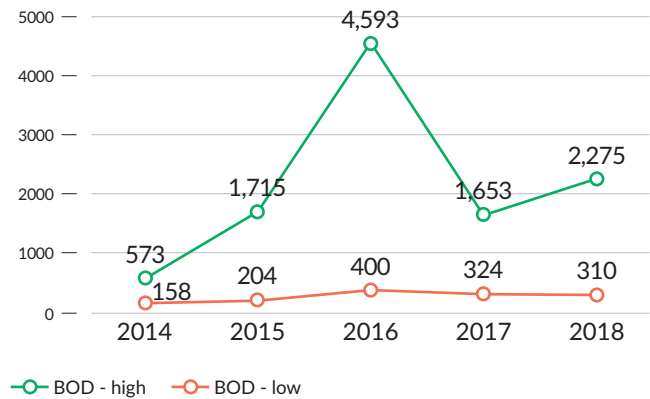
Mill and plantation operations account for the majority of our water consumption. River water is extracted for use in processing mills, while rainwater is harvested to supply housing areas, communities and other operational activities. Rainwater for firefighting and other contingencies is stored in ponds constructed near our plantations. Our continuing effort to raise awareness about water conservation has resulted in a 22% reduction in consumption at our mills over the past five years. We believe this puts our consumption in line with our industry peers and best practices.



MILLS WATER USAGE (M³/MT FFB)



BIOLOGICAL OXYGEN DEMAND LEVELS (PPM)



Note: BOD levels measured at the environmental impact point

POME from our mills is collected in ponds, where it is treated to reach the levels required by local regulations. It is then applied to land as a fertiliser. We monitor POME quality at the environmental impact point based on the following parameters: Chemical Oxygen Demand (COD), Biological Oxygen Demand (BOD), ammoniacal nitrogen content, nitrate content, pH, total dissolved solids (TDS) and total suspended solids (TSS).

We are currently undertaking research into the optimal use of POME for land application so that we can reduce our reliance on inorganic fertiliser. Experimental trials conducted at two of our mills resulted in increased BOD levels in 2016, although the BOD levels of all POME used for land application were within regulatory limits.

PEOPLE

COMMUNITY LAND RIGHTS AND PARTNERSHIPS

Our license to operate depends on good community relations and strong partnerships. In accordance with the RSPO P&C, we have implemented a detailed Free, Prior and Informed Consent (FPIC) process that mandates participatory mapping and social impact assessments prior to all new developments. A management and mitigation plan is developed with all relevant stakeholders to ensure that land rights holders and their representatives are appropriately identified, and that adequate information is provided on both benefits and negative impacts. These measures ensure that informed consent can be given or withheld in accordance with the wishes of the community.

At the heart of our FPIC process is a CSR programme designed to ensure that communities gain tangible and long-term benefits from partnering with us. The programme is integral to our Bumitama Biodiversity and Community Project (see page 21), as it provides incentives for communities to support and engage in the protection, restoration and co-management of our conservation areas.

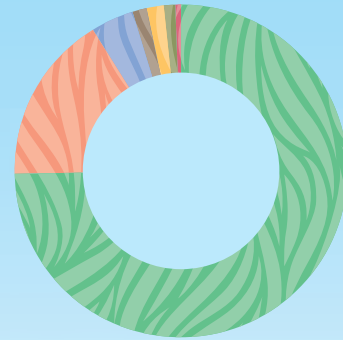
Our CSR programme currently focuses on a range of community support services, including:

- Medical care
- Daycare centres and kindergartens, primary and secondary schools, and junior colleges
- The Bumitama Academy for specialised training
- Religious activities
- Sports and competitions
- Women's group activities

Bumitama also supports a range of livelihood and food security programmes for local communities, such as small-scale poultry farming and the cultivation of rice and maize.

CSR EXPENDITURE 2018

(Total IDR 21.49 Billion)



	%
● Schools and childcare	75.0
● Social and cultural activities	16.4
● Infrastructure	3.9
● Health (including company clinics)	1.4
● Synergic community relations (Projects undertaken in collaboration with local authorities, law enforcement etc)	1.9
● Local business development	0.9
● Others	0.5



PEOPLE

To provide communities with clear alternatives to forest encroachment, we have invested significantly in the development of non-timber forest businesses. These include successful trials of edible bird nest cultivation, cultivation of honey from stingless bees, support for ecotourism infrastructure and training, and the exploration of local forest resources for which there is an apparent market demand.

Such businesses are also a potential solution for issues that arise when we decide to protect HCS areas. In PT Karya Makmur Langgeng, one of our newer developments in West Kalimantan, conservation set-aside resulted in a reduction of total area for smallholders, despite plasma allocation remaining at 20%. To offset this, we work with smallholders to identify alternative income streams based on the development of forest products, such as baskets, mats, food products and fragrance from bamboo, honey, rattan and other local forest species.

Besides NTFP, identifying further income streams is a critical part of our strategy to protect our conservation areas while providing sustainable livelihood alternatives to communities that are affected by the need to avoid deforestation.



POTENTIAL NON-TIMBER FOREST PRODUCTS IDENTIFIED BY VILLAGERS IN SEKONYER (PT ASMR)

Local/Market Name	English Name	Scientific Name	Uses
Gaharu	Agarwood, Aloewood, Eaglewood, Lign-aloes	<i>Aquilaria spp.</i>	Resin
Sarang burung Pudang, Pekakak, Jalak Suren, Kucer, Cucak Hijau or Kutilang	Edible birds nest	<i>Collocalia spp.</i>	Bird nest as food commodity
Jernang	Jernang rattan, dragon's blood	<i>Daemonorops draco</i>	Highly valuable resin is extracted for red dye material. Emerging market in China as a cure-all medicine
Pasak bumi	Tongkat Ali root	<i>Eurycoma longifolia</i>	Tree roots and barks. Mostly marketed as male libido enhancement
Seluang Belong/ Saluang Balum	Saluang Balum	<i>Lavanga sarmentosa</i>	
Tengkawang	Borneo tallow nut, Illipe nut, red seraya	<i>Shorea sp.</i>	Tree fruits where the oil/fat can be extracted
Nipah	Nypa palm	<i>Nypa fruticans</i>	Leaves, leave bone, stems, tree trunks are processed into palm sugar.
Sagu/Rumbia	Sago	<i>Metroxylon sagu</i>	
Rotan	Rattan	<i>Calamus sp.</i>	Tree trunks and leaves are usually made into handicrafts
Pandan Duri/Pandan Pudak	Pandan	<i>Pandanus tectorius</i>	
Kelakai/Pakis Lemidi	Lemidi	<i>Stenochlaena palustris</i>	Leaves and stems are made into local dish
Nyatu	Gutta-percha	<i>Pallaquium sp.</i>	Resin for dentistry needs
-	Glowing mushroom	<i>Mycena illuminans</i>	Tourist attraction
Manggis hutan/Buah Kirasa	-	<i>Garcinia bancana</i>	Fruits, leaves, barks, twigs
Jelutung/Pantung	Jelutung	<i>Dyrea polyphylla</i>	Gum, resin for organic chewing gum

FOCUS ON CHILDREN

Operating in areas of Indonesia where the availability and quality of education is limited, children's education has become a major focus of our CSR programme. We now operate 37 schools and 125 childcare centres, with nearly 5,000 students in schools and over 2,400 children in childcare centres enrolled.

Six of our schools have been recognised under the Adiwiyata Green School system for teaching and promoting green and sustainable education, in a programme introduced by Indonesia in 2006 in support of the United Nation's Framework for Education for Sustainable Development. This goal of the Adiwiyata programme is to manifest a cultured environmental awareness at the school, one that the children will take into their life as they mature. In 2018, we had two of our schools recognised at district level and another three at provincial level. One additional school was recognised at national level in early 2019. In the next few years we plan to have 12 of the Bumitama schools recognised at the district and provincial level, and three of the external schools that we partner with will be recognised at district level.

We want to strengthen this environmental focus throughout our schools. We have met with the representatives of the Directorate General for Elementary and High School

Education of the Ministry of Education, and this has led to several recommendations for improving our performance in the Adiwiyata School ranking. It has also led to new training programmes, in which our schools have focused on developing innovative educational curricula and identifying local potential.

Students from our school in Pundu ranked well in the 2017 National Science Olympics (KUARK), scoring one second-place prize and one third-place prize at level 1. In the following year of the National Science Olympics, two of our Kendawangan School students qualified for the final.

In 2017, we started a project looking at assessing and improving children rights and protection through the Children's Rights and Business Principles CRBP programme focused on children living in oil palm plantations. This programme is created under the auspices of Indonesia's Ministry of Women's Empowerment and Children's Protection, the RSPO, and a global organisation that promotes the rights of children. The programme was conducted in two of our concessions, one in Central and one in West Kalimantan. The differences in their characteristics should well represent the whole spectrum of conditions and cases existing across our operations. Assessment of the conditions of children growing up in our areas was conducted in April – May 2018 and the results were delivered in September 2018.



PEOPLE

Good practices identified:

Nutrition and Health Services:

- Health services organised by professional medical personnel; coverage of health care costs and provision of ambulance cars fleet.

Maternity and Breastfeeding Rights:

- Regular mapping of pregnant women to facilitate implementation of appropriate health services.

Access to Education:

- Organising educational services by professional teachers in facilities that support optimal learning activities.

Some challenges identified:

- External (outside of plantation) healthcare facilities are far away and hard to reach.
- Adoption of exclusive breastfeeding by mothers is still low.
- Supervision of nutrition in food should be provided.
- Distance of school facilities and truancy issues.
- Issues in administration of children (birth certificate, etc.) due to distance of government offices from the site.

As a follow-up on the CRBP program, Bumitama has introduced breastfeeding facilities into PT KMB and PT GKS. We are also expanding the programme to provide support and advice for mothers on breastfeeding, and are training midwives and nurses to provide special training as



a breastfeeding counsellor. We are planning to roll these programmes out across all of our RSPO certified units by 2020 and groupwide by 2023 and to start education programmes for the communities together with various health organisation.

FOOD SOURCE PROGRAMME

To provide fresh and healthy food for our workers, we have developed food source areas in our operations in West and Central Kalimantan. The areas in West Kalimantan cover around 20 hectares and have been operating as a part of the Bumitama Biodiversity and Community Project (BBCP). Besides growing organic produce, the areas function as demonstration pilots and training facilities for our staff and surrounding communities. They receive interactive training on how to develop small-scale agriculture, and learn about integrated natural farming methods as a form of alternative livelihood.

A similar area that employs the principles of “show and replicate” has been set up in Central Kalimantan. The centre is available for our communities and workers alike. It combines a variety of specialised landscape components: part forest for NTFP, part farmland, and part vegetable/fruit plantation. We also encourage the local people and our staff to plant directly in front of their own homes. We provide them with seeds and training, not only to grow both fruits and vegetables, but also to grow protein sources like fish and poultry.



RIGHTS OF WORKERS

A productive, healthy and satisfied local workforce is integral to the success of our operations, and we provide fair and competitive conditions for all Bumitama employees.

We respect workers' rights as set out in the International Labour Organization (ILO) core conventions and are committed to the principles of the Universal Declaration of Human Rights. Our Sustainability Policy explicitly covers our own employees, as well as contract, temporary and migrant workers. The Policy also requires our suppliers and subcontractors to uphold the same standards.

WAGES AND TRANSPARENCY

All Bumitama workers are paid above the local minimum wage and all have detailed contracts. Piece-rate work completed by harvesters, for example, is clearly identified on payslips.

In addition to wages, our permanent workers receive benefits including free accommodation, clean water, rice, electricity, healthcare, free education and holiday bonuses. These are contractual benefits and form part of their terms of employment.

Reducing the proportion of workers on temporary contracts has been one of our long-term workforce strategies. We believe permanent contracts make for a more stable and productive workforce and ensure that all employees receive appropriate benefits and training. Since 2014, we have been making great progress towards this objective. Today, only 5% of our employees are on temporary contracts, compared to 45% five years ago.

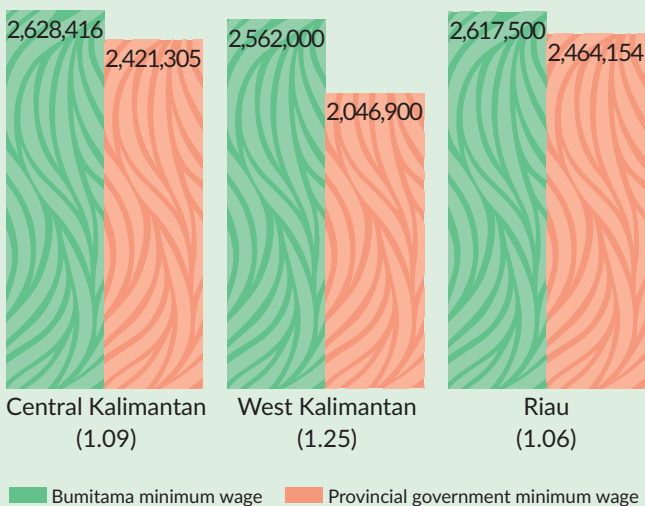


While we will continue utilising temporary contracts for some seasonal tasks, workers on these contracts will receive some health insurance benefits (BPJS – government covered insurance), such as the Work Accident Insurance and Fatality Insurance, and access to our health facilities. Workers will also receive annual leave and maternity leave in accordance with the valid Indonesian regulations.

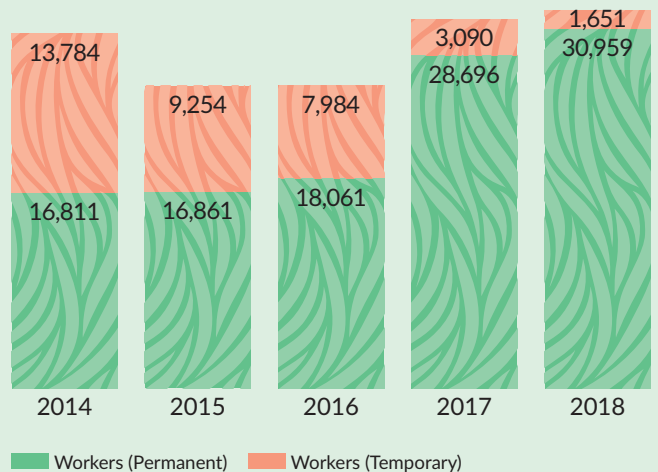
The minimum wage rate is based on the Governor's decree as a result of a tripartite (Government – Workers Association – Business Association) discussion and agreement. Contracts are provided in Indonesian and workers must sign these before commencing employment to indicate they fully understand their rights.

MINIMUM WAGE

(RATIO EXCEEDING MANDATORY WAGE IN BRACKETS)



WORKERS BY CONTRACT TYPE



PEOPLE

HEALTH AND SAFETY

The safety of our employees is our primary concern, and improvements in workplace safety have been at the forefront of our worker engagement activities over the past two years. We are developing new standard operating procedures across all plantations and mills, and have started the implementation of OHSAS 18001 across our operations.

In 2018, Bumitama conducted new types of trainings with the aim of reducing accident rates across our operations. Each of our ten areas had one person trained to become an "Occupational Health and Safety expert". In addition, 17 Bumitama employees became designated first-aiders, trained to provide emergency assistance to people injured at work in plantations and mills. Meanwhile 17 nurses and midwives in our healthcare facilities became "Corporate Hygiene and Occupational Health Officers", following training that complies with the standard for doctors and medical practitioners in Indonesia.

ACTIONS PLANNED FOR 2017-19

Programmes	2017	2018		2019
		Programme	Update	Programme
Standards and Procedures	Review, evaluate and update standard operating procedures (SOPs)	Integrated ISO 14001:2015 and OHSAS 18001 implementation in all Management Units	ISO 14001 successfully certified one mill, while two are in progress	SOP review and update, check on compliance with new regulations and standards
System	<ul style="list-style-type: none"> - Internal and external audit of OHSAS 18001 - Implement 5R in mills and traction 	<ul style="list-style-type: none"> - Internal and external audit of OHSAS 18001 - Implement 5R in plantation 	<ul style="list-style-type: none"> - Implementation of 5R successful in some of our mills 	<ul style="list-style-type: none"> - Continue to fully implement 5R in mills and plantations
Training Health & Safety (H&S)	<ul style="list-style-type: none"> - Health & Safety expert in-house training for Health & Safety Committee secretary as required by regulation - Annual Fire management training in cooperation with Manggala Agni (Forestry Dept) for all of our 13 areas, conducted on a rotational basis 	<ul style="list-style-type: none"> - Evaluation of HSE permit for operator (Boiler, Electricity, Heavy Vehicle and Transportation) and Health & Safety expert - Training/certification for operator (Surat Ijin Operator) if needed - HSE refreshment training for quality control (QC) 	<ul style="list-style-type: none"> - Evaluation of HSE permit for operator (Boiler, Electricity, Heavy Vehicle and Transportation, Medical Practitioner, Certified First Aider and Health & Safety expert - Training/ certification for operators (Surat Ijin Operator) - HSE Training for HSE Officers 	<ul style="list-style-type: none"> - Evaluation of HSE permit for operator (Boiler, Electricity, Heavy Vehicle and Transportation, Medical Practitioner, Certified First Aider and Health & Safety expert - Training/certification for operators (Surat Ijin Operator) - HSE Training for HSE Officer - Annual Fire management training
Review and Monitoring implementation	Evaluation and audit by QC Department to ensure the implementation is on track	Conduct HSE joint internal audit (CCM, QC, H&S Officer Area) to improve HSE Maturity level	Workplace health & safety audit has been done by QC (plantation an mill), while Sustainability department will conduct H&S audit integrated with RSPO & ISPO certification, regularly inspected by a H&S Officer	Workplace health & safety audit has been done by QC (plantation an mill), while Sustainability department will conduct H&S audit integrated with RSPO & ISPO certification, regularly inspected by a H&S Officer
Infrastructure of Health & Safety	Review and evaluation of existing equipment to ensure the equipment fulfil the regulation & procedure standards	Integrated procedures ISO 14001:2015 and OHSAS 18001 implementation in all Unit Management	Availability and readiness of emergency tools at each unit	Availability and readiness of safety tools at each unit safety (such as poisonous gas measurement unit)

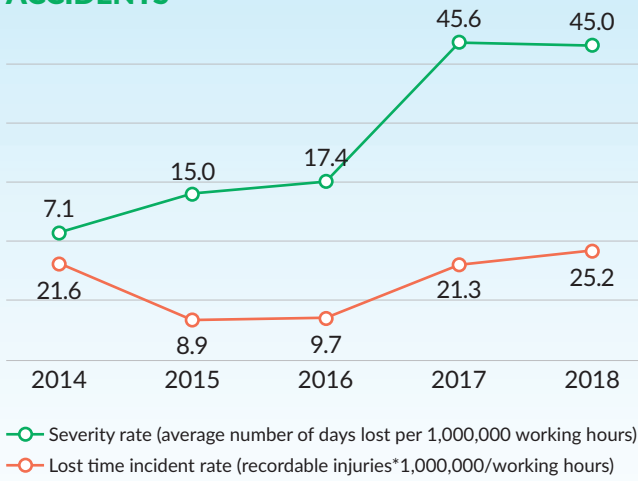
We are also working with suppliers and subcontractors to raise health and safety standards throughout our sector. We provide safety briefings and incorporate required health and safety standards into all contracts.

Despite these efforts, we saw increasing accident rates in 2017–2018. This increase is attributed to more accurate and vigorous reporting, but we recognise that we still have significant work to do in this area.

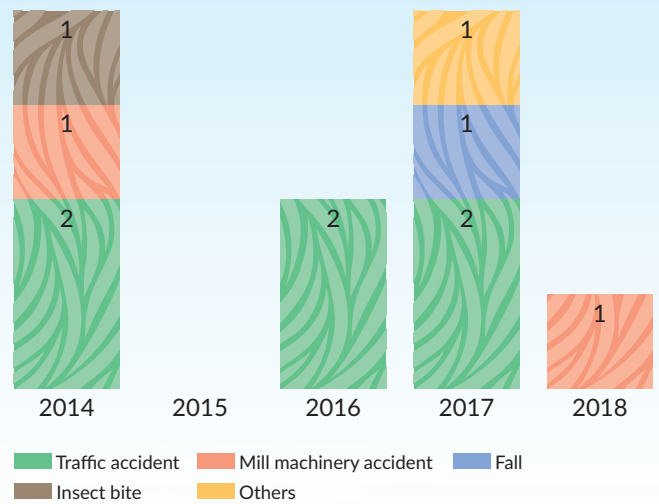
With great sadness and concern we recorded five work-related fatalities in 2017-2018: three of which resulted from traffic accidents, one from a mill incident and one from a fall.

We are now analysing the data we have collected on these types of accidents. Focusing first on the most common circumstances, we will develop a dynamic and transformative strategy to tackle the current high accident rate. Beyond regular training, we are creating a dedicated task force to reduce the number of workplace accidents and completely eradicate fatalities. One of the many safety measures identified and implemented was to ensure the availability of sleeves for harvesting knives and building a secured shelter near to estates to house all harvesting tools, as it is unsafe to carry the tools to and from home. Safety measures will be incorporated as KPIs for our estate managers and designated environmental health and safety (EHS) officers will bear responsibility for safety performance in each estate.

ACCIDENTS



FATALITIES



PEOPLE

FREEDOM OF ASSOCIATION

We respect the right of all our employees to join and form associations of their choice and to engage in collective bargaining. Workers' unions are present in all of our operations and union representatives meet with management on a quarterly basis. Unions are internal in most cases, but some workers have opted for external representation. Bumitama does not interfere in the workings or structure of either.

BONDED LABOUR AND MIGRANT WORKERS

We have not identified bonded or forced labour as a risk to our operations, as we do not employ foreign or migrant workers. We do not withhold personal documents or any other form of collateral that enables the free movement of workers.

CHILD LABOUR

We enforce a strict ban on hiring employees below the age of 18, whether in permanent or temporary positions. However, we recognise the risk that local employees may bring children to the field to help during high crop seasons. We expressly prohibit this practice and continue raising awareness about the associated risks.

We provide our employees' children with good quality day-care and schooling during working hours, and we monitor attendance and investigate if children are absent. While we focus on primary schooling, we also offer initiatives including vocational schools for older children.

In 2017 we started work on a programme aimed at assessing and improving the rights of children and women on two of our pilot sites. These pilots are used to create a benchmark to compare practices across our other plantations and with other players in the industry. This programme has been created under the auspices of Indonesia's Ministry of Women's Empowerment and Children's Protection, RSPO, and a global organisation that promotes the rights of children.

NON-DISCRIMINATION

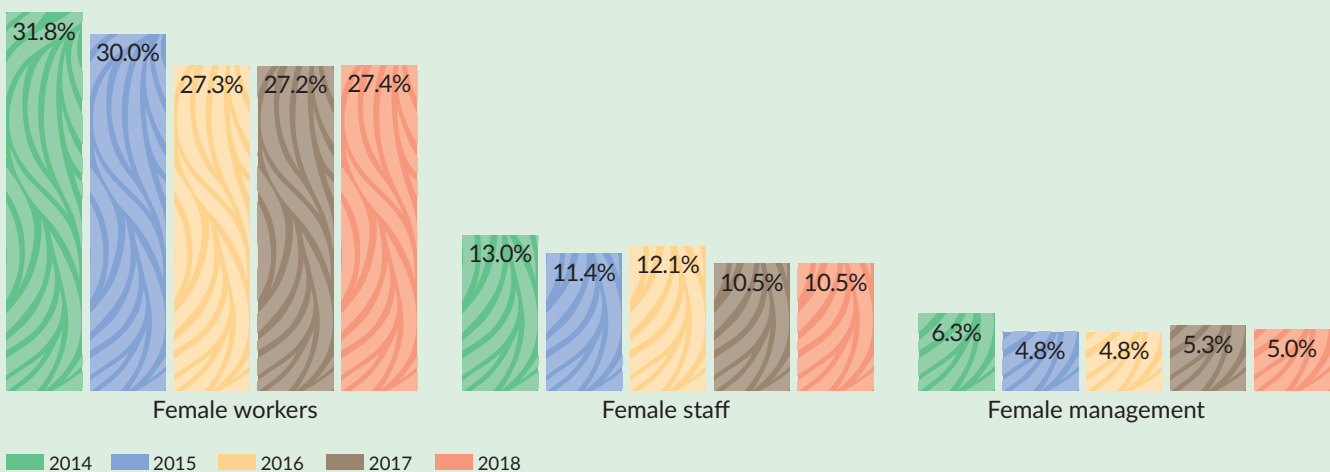
We have a zero-tolerance policy towards gender discrimination and sexual harassment. Bumitama operates an anonymous sexual harassment reporting mechanism and investigates every report received.

The palm oil industry is traditionally male-dominated. However, we wish to provide more opportunities for women in our company, and we are exploring ways to achieve a more gender-balanced workforce. In 2017 and 2018, just under 30% of our workers were women, a slight decrease from previous years, but still very high level compared to the vast majority of peers in our industry, and we were pleased to maintain such a high level.

EMPLOYEE DEVELOPMENT AND RETENTION

As the palm oil sector experiences growth across the region, it is critical for our business that Bumitama is seen as an attractive and preferred employer. In 2018, Bumitama experienced unusually high employee turnover rate, particularly among harvesters. From an internal

GENDER DISTRIBUTION



review, we found that this was partially due to a change in the use of harvesting tools (age and height of palms), from *dodos* (axe-like tool) to *egrek* (knife-like tool), but also due to very strong competition from other plantation companies in the region. To reduce turnover in the future, we plan to improve our recruitment process through both stricter selection and a focus on enhancing services provided to employees, such as housing amenities or more easily-accessible educational and healthcare facilities.

Despite the increase in employee turnover, Bumitama continues to focus on its employee growth by strengthened training and development programmes.

Our employees are offered three levels of training:

- A basic programme for all employees that aims to increase competencies (including performance coaching).
- Specific development programmes that aim to fill competency gaps in accordance with an individual's specialisation.
- Workshops and meetings to keep staff up to speed on key developments.

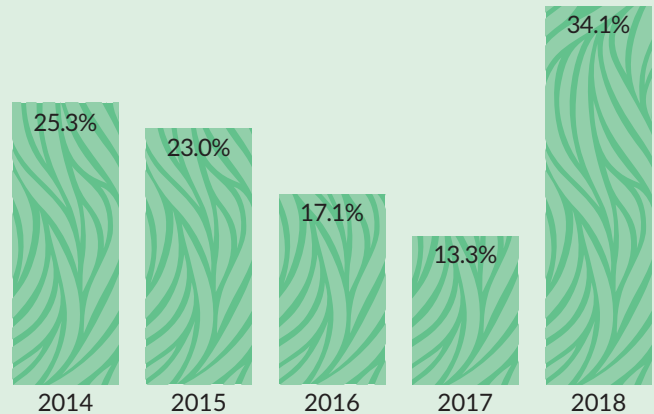
We have continued to socialise our revised Corporate Culture Values among our employees throughout the current reporting period. Our new employee orientation programme is now fully operational, and we continue to drive strong employee engagement with team-building activities that include both staff and management.

In 2004, we established training centres that concentrate on building employees' proficiency in agronomy, mill operation, as well as administration. This training is in line with the company's identity and with the emerging Best Management Practices and Standard Operation Practices. The training has been broadened by cultivation of the company values, attitudes, and competencies, and is now promulgated via our Bumitama Learning Centres.

Another transformation happened in 2014, when Bumitama Academy was formed to enhance our recruitment processes, advance competence development, and elevate leadership development at all organisational levels. The Academy set up a partnership programme with the Institute of Agricultural Stiper Yogyakarta (INSTIPER) to strengthen managerial and leadership capacity among our future unit leaders. We have also continued to run tailored training sessions for different employee groups at our specialised Learning Centres. We opened our first Learning Centre in

EMPLOYEE TURNOVER

(PERMANENT EMPLOYEES AND WORKERS)



Pundu in 2007, which has been ISO 9001:2008 certified since 2011, and an additional Learning Centre in the Kendawangan region in 2013. In the meantime, the ISO certification has been upgraded to ISO 9001:2015. To date more than 850 employees have benefited from education received at these venues.

To build up a continuous scheme of training modules the Bumitama Academy was remodelled in 2018 into the Bumitama Corporate University. The Corporate University identifies talent and potential of employees for specific roles in the company, then provides tailor-made advanced learning programmes for developing the knowledge and skills necessary to become experts in their particular areas of specialisation.

The Corporate University also furnishes mandatory certification programmes for specific positions in health & safety, heavy machinery operation, and various specific aspects related to the operation of the mill.

The latest element of the Corporate University is our e-learning platform. The platform offers a flexible learning structure and access to supplementary training material, which increases both the reach and efficiency of our training programmes. To date, more than 1,100 employees have used this platform to access online courses (with over 30 currently available modules), online assessments, and online questionnaires. Our human resources department is constantly adding new modules and evaluating the results of the programme against regular training programmes in our learning centres. We also use the e-learning programmes provided by RSPO in coaching our staff on the latest sustainability practices.

PEOPLE

SMALLHOLDERS AND OUTGROWERS

Smallholders continue to play an increasingly prominent role in the global palm oil industry. More than half of all FFB processed at Bumitama mills is sourced from smallholders, with plasma scheme members and independent farmers contributing around 22% and 29% respectively.

While the growth in small-scale farming brings many economic and social benefits to rural communities, smallholder farmers can find it difficult to adopt sustainable best practices. This is why we continue to engage and support smallholders in our supply chain to ensure that all FFB originates from legal and responsible sources.

Mapping smallholder activities is central to this process, and we regularly monitor sensitive areas in the vicinity of our mills to ensure we are alerted to potential risks in our FFB supply chain. For example, by superimposing Geographic Information Systems (GIS) data of new plantings over the map of no-go areas, we can avoid sourcing FFB from illegally planted areas, HCV areas or peatland plantings.

PLASMA SCHEMES

As of year end 2018, we have allocated and developed 28.3% of our total planted area – 52,734 hectares – for smallholder schemes in Kalimantan and Riau. The provision of such schemes – commonly known as 'plasma' schemes – is mandated by the Indonesian Government, which stipulates that at least 20% of a concession's planted area is reserved for this purpose.

To set up a plasma scheme, we enter into cooperation agreements with plasma members through their chosen representative, and we help to develop the land and manage the plantations. The development costs of the plasma plantations are funded by bank loans. Plasma members enjoy a share in the profits of the plasma plantations – after the deduction of interest and loan instalments, plantation costs and a management fee.

In the financial year 2018, Bumitama distributed IDR 346 billion (around USD 24 million) in dividends to its plasma smallholders. Our current arrangement under the Plasma Programme lasts for 25 years, or until the end of the current planting cycle, depending on which occurs first. We intend to renew the arrangement in the next replanting phase. As at 2018, Bumitama has over 28,000 associated plasma scheme smallholders.





Since we provide direct agricultural assistance to plasma smallholders, and have agreed to exclusive access to their FFB, we are able to guide their implementation of our policies. We are also able to support them in securing RSPO certification and its associated benefits. Our current target to achieve RSPO certification for all plasma schemes is 2024. We completed certification of the first groups in early 2019 in PT MCM and PT ASM (1,899 HA), and expect more plasma certificates to be issued before the end of the year.

Action plan for smallholders

As well as increasing certification, our smallholder schemes continue to play an important role in driving social development and economic growth. We have been working to accelerate this progress by introducing plasma cooperatives to an alternative livelihood programme known as the Plasma Advantage Programme, which has been running successfully at the village/community level since the end of 2016 (see section on local economic empowerment).

INDEPENDENT SMALLHOLDERS AND OUTGROWERS

Most of the FFB we source from independent smallholders and outgrowers is purchased through third-party traders. This makes traceability complex, as the origin of the FFB

changes daily, and we have been concerned in some cases about the legality of FFB when we suspect plantings may have encroached upon conservation areas or areas without appropriate environmental permits.

Therefore, our priority has been to map independent smallholders, starting with those directly supplying our certified mills. After expanding the process to all of our mills, by year-end 2018 we had achieved traceability of 70.4% of the fruit supplied by independent (external) smallholders. This means that 91.4% of the total FFB processed by our mills is traceable, when combined with the 100% traceable FFB produced internally and by our plasma smallholders.

This result comes as a setback, considering our target to achieve full traceability of all FFB processed by 2017. Data analysis shows that all but one of the mills that process external fruit reached traceability above 90%. This single mill, which runs almost exclusively on external fruit, has experienced changes in supplier base that resulted in a drop in the amount of traceable FFB. We are analysing the feedback obtained during the socialisation events that supported the programme, and are preparing appropriate steps to achieve above 95% traceability of all external sources of FFB by the end of 2019.

PEOPLE

INDEPENDENT SMALLHOLDER ENGAGEMENT

In 2018, we expanded our activities around the independent smallholders and outgrower programme. We conducted socialisation and training on the best practices of oil palm plantations to our external suppliers. This includes the appropriate methods of fertiliser application, weed handling and harvesting. This approach aims to improve the quality and minimise harvesting of immature FFB, which should increase the income of the smallholders from the FFB sold. From this, the second step is to assist independent smallholders in RSPO certification.

To further develop our 'supply shed' approach to traceability we have initiated a pilot project to trace FFB supply all the way from mill to smallholder at our certified Pundu Nabatindo Mill (PNBM) in Central Kalimantan. We have also worked with local smallholders to both encourage and equip them to embrace sustainable land use, legality, best management practices and RSPO certification.

In 2016, we met with an independent smallholder group called The Tenera Farmers Group. The Tenera members responded positively to the RSPO certification proposal and became RSPO members in March 2018.

Tenera, which has an internal supply base of 970 hectares and an external supply base of 1,170 hectares, supplies between 50,000 and 60,000 metric tonnes of FFB to PNBM and other mills in the area annually.

This smallholders' group agreed to assist interested and committed smallholders and smallholder groups with

legality, best management practices and certification. The programme will be split into three phases:

- (1) Phase 1 will cover the farmers in Tenera who have already secured or are close to securing legal permit for their land (230.5 hectares).
- (2) Phase 2 will cover farmers (Tenera and others) who are engaged in the process of applying/securing legal permit for their land (around 300-450 hectares).
- (3) Phase 3 will cover farmers (Tenera and others) whose land is still in the mapping stage of legal permit application (around 350 to 450 hectares).

In October 2018, the first group of Tenera farmers were awarded RSPO smallholder certificates, covering an area of 223 hectares of oil palm owned by a collective of 35 independent farmers. We are pleased to report that this achievement continues creating ripple effects and driving even stronger interest in certification among other community members.

In addition to Tenera, we have been working with two groups with a combined 200 independent smallholders in Central Kalimantan and around 150 farmers in West Kalimantan, which represents an area of nearly 2,000 ha. We are optimistic that the two groups in Central Kalimantan can pass an RSPO certification audit in 2019, while we will aim to see smallholders in West Kalimantan certified in 2020.

Programme recipients	Programme activities	Target
External suppliers to three RSPO certified mills with 3rd party supply = 19.4% of total 3rd party FFB	Socialisation on the Bumitama Sustainability Policy & legal requirements. Successfully certified one Smallholder group - Tenera Will be extending the programme to other smallholders via Tenera and others in 2019	Done
External suppliers to five mills preparing for RSPO certification = 62.8% of total 3rd party FFB	Conducting socialisation on the Bumitama Sustainability Policy & legal requirements with the remaining suppliers Certification programme for two groups of more than 200 smallholders in Central Kalimantan Certification programme for around 150 smallholders in West Kalimantan	YE of 2020
External suppliers to the remaining mills = 17.8%, including the 5,000 smallholders under the BBCP - ISLA project	Grouping smallholders together, facilitation of land certification legal permit Further specific programmes with the formed smallholder groups focused on their productivity, legality and certification.	2019 onwards

ETHICS AND MARKETPLACE

ANTI-CORRUPTION & ETHICAL POLICIES

Integrity is the foundation on which we build our success. Only by upholding the highest ethical standards, and ensuring that our dealings at all levels are free from bribery and corruption, can we expect to secure the respect of our stakeholders and support from our communities.

The Bumitama Code of Conduct is designed to guide us in our dealings with business partners and regulatory bodies. The Code of Conduct covers all Bumitama employees, as well as the Board of Directors and other individuals working on behalf of the company. In overview, it deals with:

- Legality and the imperative to ensure legal compliance in all dealings with stakeholders, including regulatory bodies, business partners and colleagues.
- A complete ban on corrupt and unethical practices, such as bribery, cronyism and nepotism.
- A ban on political contributions and activity on behalf of the company (but allowing for personal political activity outside of the workplace).
- Transparency and record keeping.
- Detailed guidance on the giving and receiving of gifts.
- Guidance on behaviour toward stakeholders, including sexual harassment and complaint mechanisms.

The Code of Conduct is socialised with employees and contractors on an ongoing basis. All employees and contractors are required to sign a confirmation that they will adhere to the Code. Bumitama calls for all stakeholders to use existing whistleblowing and grievance procedures to report any instances where bribery and corruption in relation to our operations has occurred. These incidents will be investigated and dealt with using the highest degree of seriousness.

The Code of Conduct, as well as the new Anti-corruption and Anti-bribery policies published in 2018, are available in Bahasa Indonesia and English language on our website.

UPDATED LAND ACQUISITION POLICY

In 2018 Bumitama's Board of Directors updated the company's Land Acquisition Policy, based on the feedback we received from third parties. The feedback indicated the need for a greater degree of corporate governance that would surpass the requirements of relevant authorities.

The pre-qualification check, prior to submission to the Investment Board is conducted by a specialised committee and covers:

- Relationship (family, employees)
- Quality of supply
- Service standard
- Risk matrix including recommendations from a lawyer on the Board's policy and procedures



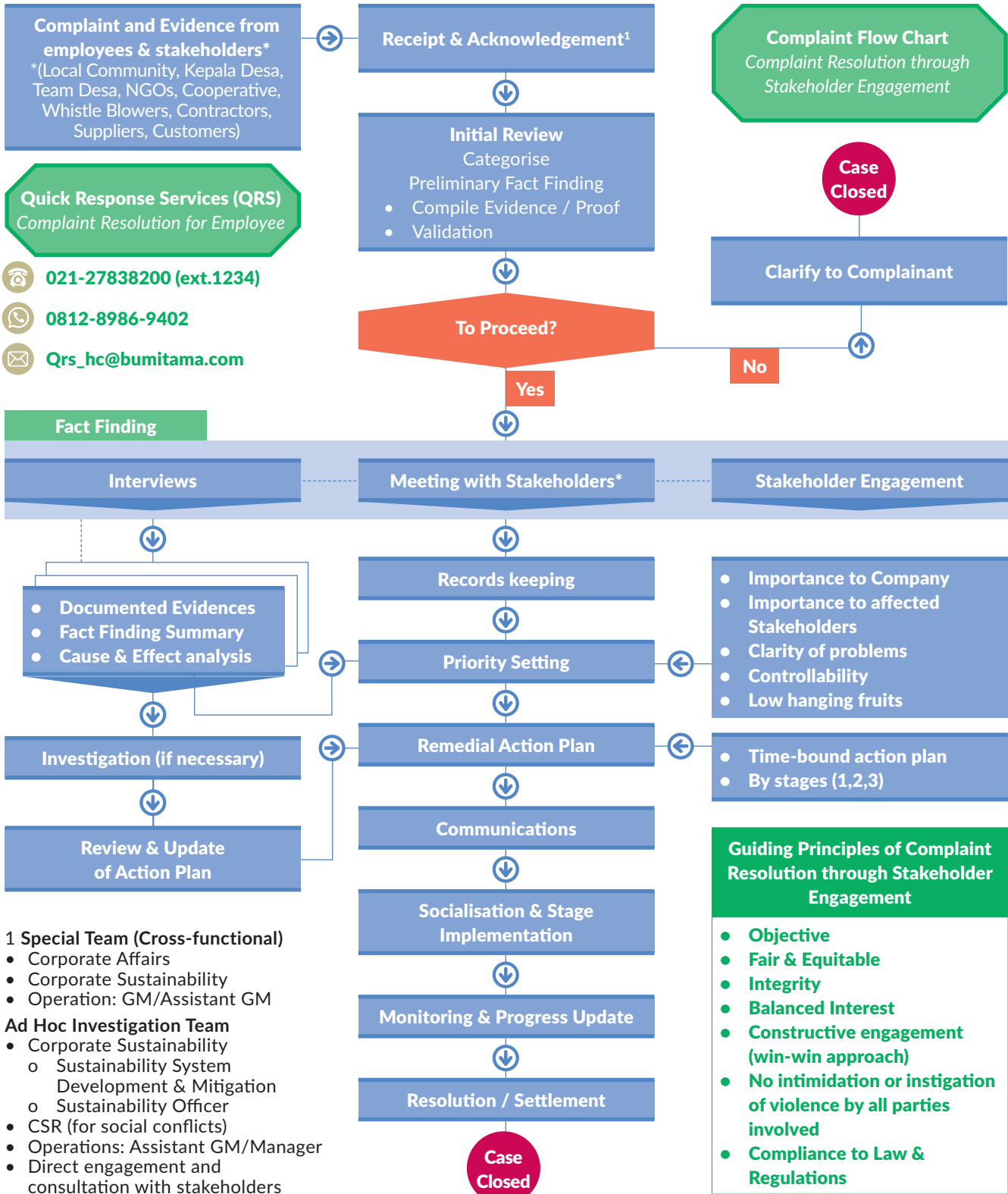
ETHICS AND MARKETPLACE

GRIEVANCE MECHANISM

Establishing a systematic and legitimate means by which our stakeholders can raise grievances and complaints is critical for the success of our sustainability efforts. In 2015, we introduced an enhanced grievance procedure to ensure a structured group-wide approach to complaints

handling. The system is available to all employees, at estate and Head Office level, offering anonymous and convenient ways of reporting grievances. Special attention is paid to all forms of sexual harassment or any other inappropriate and abusive behaviour. We observe and protect the reproductive rights of all, and especially of women.

BUMITAMA GRIEVANCE FLOW CHART



Grievances and complaints are either raised internally through our grievance procedures at site-level, or via the RSPO complaints process. No new complaints relating to our own operations or those of our subsidiaries were registered in 2017 or 2018, though two complaints are pending.

A complaint raised in 2015 relating to our subsidiary PT Bumitama Gunajaya Abadi is still ongoing with the RSPO Complaints Panel. As outlined in our last sustainability report, the case involves a community in Central Kalimantan where the terms of land surrender for a plasma scheme were under dispute. The case was raised with RSPO by Sawit Watch, Friends of the Earth International and Walhi on behalf of fifteen community members, and involved disputes surrounding a plasma scheme and cooperative issues. We have engaged with both RSPO and the complainants and have undertaken a participatory mapping process. The case remains outstanding at the time of reporting and we continue to engage with the community and the Complaints Panel².

PT HATIPRIMA AGRO (HPA) / PT LANGGENG MAKMUR SEJAHTERA (LMS)

On the second pending complaint, we are continuing to engage stakeholders on the allegations from international NGOs concerning the legality and process surrounding the acquisition of PT LMS in Central Kalimantan. The allegation implied that Bumitama had sought to circumvent relevant legal permit requirements and RSPO requirements by means of a sale through Bumitama-linked intermediaries (who cleared the land), and a subsequent reacquisition by Bumitama for restoration. A detailed overview of the case and our substantive response can be found in our 2016 Sustainability Report, and we provide ongoing updates on

our website. There have been no substantial developments in the on-going RSPO Complaint case, but we continue to seek to document and demonstrate that there has been no wrongdoing on our part related to this land acquisition. Please refer to the RSPO case tracker for further updates.

RSPO CASE TRACKER

	2014	2015	2016	2017	2018
Total Number of Cases	4	5	6	6	6
Active	1	1	1	2	2
Closed	3	4	5	4	4

In addition to the formal RSPO complaints process we also monitor issues raised via other channels, including social media or NGO reports, using an in-house grievance tracker. Our policy is to engage proactively with stakeholders raising issues through the public domain. For details about our response to these grievances, please turn to the report sections on legality (page 43), communities and indigenous peoples (page 31), and biodiversity and wildlife protection (page 18).

WHISTLEBLOWING POLICY

Our whistle-blowing policy enables any stakeholder – be it an employee, customer, supplier, contractor or local community member – to raise concerns about improprieties in financial reporting, unethical practices or other matters. The policy guarantees confidential reporting without fear of reprisals. Anonymous disclosures are also accepted and anonymity is honoured. The whistle-blowing policy and the procedures put in place to implement it have been reviewed and approved by our Board’s Audit Committee.

² See detail on the case here <https://askrspo.force.com/Complaint/s/case/50090000028Es11AAC/detail>



ETHICS AND MARKETPLACE

CORPORATE GOVERNANCE AND SHAREHOLDINGS

Bumitama and its subsidiaries recognise the importance of attaining high standards of corporate governance, business integrity and professionalism in all business activities and operations. The Board provides oversight of management and leads the development of corporate strategies. The Board is also responsible for ensuring that our company's corporate governance practices are aligned with the Singapore Code of Corporate Governance.

The Board consists of six members. Three independent directors, one non-executive and two executive directors. The Board's composition is consistent with the geographical distribution of our operations, including three Singaporean, two Indonesian and one Malaysian member. It also reflects the diverse professional and educational backgrounds required to ensure that all aspects of our operations are adequately represented. There is currently one female Board member.

The Chairman of the Board, Mr. Lim Gunawan Hariyanto, is also our CEO. To ensure adequate oversight, the company

has appointed an independent lead director, and all Board committees are chaired by an independent Board member.

The Board is deeply involved in the company's sustainability policy strategy and disclosures. Sustainability performance, emergent issues and progress against targets are reviewed at each Board meeting.

In 2018, Board members participated in a range of sustainability-related training sessions, including the ACRE Seminar-Blue-Green Summit II and Sustainability Summit Asia; as well as the SID Board Risk Committee Chairmen's Conversation-Business Transformation Risk Management. Bumitama received awards from the Asiamoney Corporate Governance Poll 2018 for Singapore under the categories of Overall Most Outstanding Company in Singapore, Most Outstanding Company in Singapore - Small Cap and Customer Staples. The Edge Billion Dollar Club has also awarded Bumitama its Most Profitable Company (Agriculture Sector) award.

For more detail on Bumitama's corporate governance processes, please see our 2018 Corporate Governance Report on page 25-41 of our Annual Report 2018.





BASE DATA

Category/Indicator	Measurement unit	FY2018	FY2017	FY2016	FY2015	FY2014
ECONOMIC						
Revenue	IDR billion	8,381	8,131	6,630	5,542	5,757
Profit before tax	IDR billion	1,705	1,894	1,551	1,002	1,805
EBITDA	IDR billion	2,395	2,427	1,925	1,531	2,145
Basic earnings	IDR per share	627	682	572	406	656
LAND AND PLANTATION						
Total land area	HA	234,000	233,000	225,000	207,000	199,000
Oil palm planted area	HA	185,165	182,675	175,243	164,177	153,268
	Old and Mature	162,815	158,083	147,513	126,283	105,869
	Immature	22,350	24,592	27,730	37,894	47,399
Nucleus planted area	HA	132,431	131,421	128,966	119,679	115,463
	Old and Mature	113,238	110,699	104,970	89,211	77,177
	Immature	19,193	20,722	23,996	30,468	38,286
Plasma planted area	HA	52,734	51,254	46,277	44,498	37,805
	Old and Mature	49,577	47,384	42,543	37,072	28,692
	Immature	3,157	3,870	3,734	7,426	9,113
Average age	Years	8.9	8.3	7.9	7.3	6.0
Trend & Ratios (Plasma Planted)	% by HA	28.5%	28.1%	26.4%	27.1%	24.7%
Production volume						
Fresh fruit bunches (FFB) - Nucleus	MT	2,276,866	1,784,729	1,513,422	1,578,815	1,401,040
FFB - Plasma	MT	1,061,368	817,495	672,018	711,374	603,729
FFB Total (Nucleus and Plasma)	MT	3,338,234	2,602,224	2,185,440	2,290,189	2,004,769
FFB purchased 3 rd parties	MT	1,374,879	1,007,978	901,492	960,035	657,350
Crude palm oil (CPO)	MT	1,043,045	818,835	701,304	742,842	618,665
Palm kernel (PK)	MT	208,311	166,224	138,175	141,589	115,431
Productivity						
FFB yield per mature hectare	MT/HA	20.4	16.4	14.6	17.8	18.4
CPO yield per mature hectare	MT/HA	4.5	3.7	3.3	4.1	4.3
Indonesian Industry	MT/HA	3.9	3.6	3.6	3.8	3.8
Extraction rate - CPO	%	22.1%	22.7%	22.7%	22.9%	23.2%
Extraction rate - PK	%	4.4%	4.6%	4.5%	4.4%	4.3%

Category/Indicator	Measurement unit	FY2018	FY2017	FY2016	FY2015	FY2014
EMPLOYEES						
Total number of employees	Persons	32,610	31,786	27,168	27,347	31,846
By contract type	Permanent	30,959	28,696	18,061	16,861	16,811
	Temporary	1,651	3,090	7,984	9,254	13,784
By category (Permanent)	Management	200	188	167	166	160
	Staff	1,078	1,068	956	1,066	1,091
	Workers	31,332	30,530	26,045	26,115	30,595
By gender						
Management	Male	190	178	159	158	150
	Female	10	10	8	8	10
Staff	Male	965	956	840	944	949
	Female	113	112	116	122	142
Workers	Male	22,736	22,235	18,928	18,285	20,854
	Female	8,596	8,295	7,117	7,830	9,741
Total	Male	23,891	23,369	19,927	19,387	21,953
	Female	8,719	8,417	7,241	7,960	9,893
Employee turnover (Permanent staff & workers)	%	34.1%	13.3%	17.1%	23.0%	25.3%
Employee turnover (incl permanent & casual staff & workers)	%	39.0%	32.8%	28.1%	35.4%	36.1%
LABOUR CONDITIONS						
Minimum starting wage						
Group	IDR per month	2,600,426	2,441,994	2,202,443	2,055,755	1,812,000
Central Kalimantan	IDR per month	2,628,416	2,407,552	2,289,868	2,107,260	1,908,528
West Kalimantan	IDR per month	2,562,000	2,480,000	2,110,000	1,980,000	1,812,000
Riau	IDR per month	2,617,500	2,516,812	2,325,000	2,125,500	1,755,000
Minimum Wage: National Requirements by Province						
Central Kalimantan	IDR per month	2,421,305	2,227,307	2,057,558	1,896,000	1,723,970
West Kalimantan	IDR per month	2,046,900	1,882,900	1,739,400	1,560,000	1,380,000
Riau	IDR per month	2,464,154	2,266,722	2,095,000	1,878,000	1,700,000
Minimum wage ratio: Company vs. National Requirements by Province						
Central Kalimantan	Ratio by IDR	1.09	1.08	1.11	1.11	1.11
West Kalimantan	Ratio by IDR	1.25	1.32	1.21	1.27	1.31
Riau	Ratio by IDR	1.06	1.11	1.11	1.13	1.03

BASE DATA

Category/Indicator	Measurement unit	FY2018	FY2017	FY2016	FY2015	FY2014
HEALTH AND SAFETY						
Lost time incident rate (LTA)	Incidents per 1,000,000 working hours	25.2	21.3	9.7 ³	8.9 ³	21.6
Severity rate	Average number of lost time per incident	45.0	45.6	17.4	15.0	7.1
Fatalities	Number of accidents	1	4	2	0	4
COMMUNITY AND CSR						
No. of Cooperative Members	Number (estimate)	28,000	26,000	25,000	25,000	19,000
Total	IDR in billion	21.49	18.80	9.95	10.5	8.70
- Schools and childcare	%	75.0%	69%	61%	20%	14%
- Social & Culture activities	%	16.4%	13%	9%	13%	16%
- Infrastructure	%	4.0%	9%	3%	6%	32%
- Health (including company clinics)	%	1.4%	2%	2%	11%	6%
- Synergic community relations (Projects undertaken in collaboration with local authorities, law enforcement etc.)	%	1.9%	4%	10%	10%	11%
- Local business development	%	0.9%	2%	4%	23%	8%
- Others	%	0.5%	1%	11%	17%	13%
No. of Schools	Units	37	36	36	36	35
No. of Teachers	Persons	298	275	298	267	256
No. of Students	Persons	4,984	4,746	4,486	4,375	4,067
Childcare centre	Units	125	119	126	108	78
No. of Children	Persons	2,423	2,373	2,192	2,225	1,483
No. of Central Clinics	Units	12	10	7	6	5
No. of Branch Clinics	Units	41	38	42	37	41
No. of Ambulance	Units	13	13	11	10	14
No. of Doctors	Persons	4	5	4	5	5
No. of Paramedics	Persons	100	105	89	90	101

³ Restated

Category/Indicator	Measurement unit	FY2018	FY2017	FY2016	FY2015	FY2014
ENVIRONMENT						
Emissions						
Emissions	CO ₂ -eq/ MT FFB	0.34	0.34	0.37	0.328	0.547
Methane from POME	CO ₂ -eq MT	64,707	46,168	60,791 ⁴	45,859	69,943
Fertiliser usage	MT/HA	1.05	1.01	0.89	0.90	1.16
Herbicide usage	litres/HA	2.52	1.86	1.40	1.98	1.75
Water usage - by mill	m ³ /MT FFB	1.28	1.26	1.25	1.30	1.59
Biological oxygen demand - New mill	PPM	310 - 2,275	324 - 1,653	400 - 4,593	204 - 1,715	158 - 573
Toxicity	Toxicity units per planted hectare	218	188	140	194	175
CERTIFICATION						
RSPO certified area	ha	41,970	41,594	41,594	41,550	26,622
RSPO	Certificate	4	5	4	3	2
ISPO	Certificate	3	3	1	1	1
NPP Notification	Notification	0	1	3	0	7
eTrace License	License	4	5	4	2	2
Total no. of cases	Cases	6	6	6	5	4
Active	Cases	2	2	1	1	1
Closed for monitoring	Cases	0	1	1	1	3
Closed	Cases	4	3	4	3	0
Certified Sustainable Palm Oil (CSPO) & Certified Sustainable Palm Kernel (CSPK)	MT	167,284	158,106	166,638	152,829	117,815

⁴ Restated

GRI STANDARDS INDEX

The Global Reporting Initiative (GRI) is a multi-stakeholder standard for sustainability reporting, providing guidance on determining report content and indicators. GRI is the first and most widely adopted global standard for sustainability reporting and has been designed to enhance the global comparability and quality of information on environmental and social impacts, thereby enabling greater transparency and accountability of organisations. Sustainability reporting based on the GRI Standards should provide a balanced and reasonable representation of an organisation's positive

and negative contributions towards the goal of sustainable development. We report in accordance with the latest version of the GRI Standards, which are the 2016 disclosures except for disclosures 303 and 403, which were updated in 2018.

There are two options for preparing a report in accordance with the GRI Standards: Core and Comprehensive. This report has been prepared in accordance with the GRI Standards: Core option.

GRI CONTENT INDEX			
Disclosure		Section	Page
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102-1	Name of Organisation	About Bumitama	8
102-2	Activities, brands, products, and services	About Bumitama Annual Report	8 2
102-3	Location of headquarters	Contact	65
102-4	Location of operations	About Bumitama Operations Annual Report	9 10 2-3
102-5	Ownership and legal form	Financial Information and ownership structure	8
102-6	Markets served	About Bumitama Operations Customers	8 10 11
102-7	Scale of the organisation	About Bumitama Operations Annual Report	8 10 2-3, 8
102-8	Information on employees and other workers	About Bumitama Rights of workers	8 35
102-9	Supply chain	Suppliers and traceability to plantations Smallholders and outgrowers	10 40
102-10	Significant changes to the organisation and its supply chain	No major changes in the reporting period	
102-11	Precautionary Principle or approach	Approach to sustainability Biodiversity protection Fire monitoring and prevention Note: RSPO requires a precautionary approach	12-13 18 23
102-12	External initiatives	Approach to sustainability Certification and engagement Biodiversity protection Fire monitoring and prevention	12 15 21-22 23
102-13	Membership of associations	Approach to sustainability	12
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102-14	Statement from senior decision-maker	Chairman Welcome	2
102-15	Key impacts, risks, and opportunities	Targets and objectives Approach to sustainability	6-7 12,14

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102-16	Values, principles, standards, and norms of behaviour	Approach to sustainability Anti-corruption and ethical policies	12 43
102-17	Mechanisms for advice and concerns about ethics	Grievance mechanism	44
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102-18	Governance structure	Bumitama sustainability team structure Corporate governance and shareholdings Annual Report	13 46 25
102-19	Delegating authority	Bumitama sustainability team structure Corporate governance and shareholdings	13 46
102-20	Executive-level responsibility for economic, environmental, and social topics	Corporate governance and shareholdings	46
102-21	Consulting stakeholders on economic, environmental, and social topics	Approach to sustainability	12-14
102-22	Composition of the highest governance body and its committees	Bumitama sustainability team structure Corporate governance and shareholdings Annual Report	13 46 26
102-23	Chair of the highest governance body	Corporate governance and shareholdings	46
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102-25	Conflicts of interest	Annual Report	40
102-26	Role of highest governance body in setting purpose, values, and strategy	Corporate governance and shareholdings Annual Report	46 25
102-27	Collective knowledge of highest governance body	Corporate governance and shareholdings Annual Report	46 27
102-28	Evaluating the highest governance body's performance	Annual Report	31
102-29	Identifying and managing economic, environmental, and social impacts	Approach to sustainability About the report	12-14 62
102-30	Effectiveness of risk management processes	Annual Report	35
102-31	Review of economic, environmental, and social topics	Corporate governance and shareholdings	46
102-32	Highest governance body's role in sustainability reporting	The Board approves all sustainability reports	
102-33	Communicating critical concerns	Grievance mechanisms	44
102-34	Nature and total number of critical concerns	Grievance mechanisms	45
102-35	Remuneration policies	Annual Report	32
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102-40	List of stakeholder groups	Approach to sustainability Certification and engagement	12-15 15
102-41	Collective bargaining agreements	Freedom of association Note: No data on percentage of total employees covered by collective bargaining agreements.	38
102-42	Identifying and selecting stakeholders	Suppliers and traceability to plantation Approach to sustainability Smallholders and outgrowers	10 12 40
102-43	Approach to stakeholder engagement	Approach to sustainability Fire monitoring and prevention Community land rights and partnerships Smallholders and outgrowers Grievance mechanism	12 23 31 40 45
102-44	Key topics and concerns raised	Suppliers and traceability to plantations Fire monitoring and prevention Smallholders and Outgrowers Grievance mechanisms	10 23 40 45
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102-45	Entities included in the consolidated financial statements	Annual Report	57
102-46	Defining report content and topic boundaries	About the report	62
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102-48	Restatements of information	About the report	62
102-49	Changes in reporting	About the report	62
102-50	Reporting period	About the report	62
102-51	Date of most recent report	The last produced report was the Sustainability Report 2016	
102-52	Reporting cycle	About the report	62
102-53	Contact point for questions regarding the report	Contact	65
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	103-2	The management approach and its components	About Bumitama Annual Report	8-11 5
	103-3	Evaluation of the management approach	About Bumitama Annual Report	8-11 5
GRI 201: Economic Performance	201-1	Direct economic value generated and distributed	About Bumitama Annual Report	8-11 5
	201-2	Financial implications and other risks and opportunities due to climate change	Our approach to sustainability Greenhouse gas accountability	12 26
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	103-2	The management approach and its components	Rights of workers	35
	103-3	Evaluation of the management approach	Rights of workers	35
GRI 202: Market Presence	202-1	Ratios of standard entry level wage by gender compared to local minimum wage	Rights of workers	35
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GRI 103: Management Approach	103-1	Explanation of the material topic and its Boundary	Approach to sustainability	12
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103-3	Evaluation of the management approach	Approach to sustainability	12	
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GRI 203: Indirect Economic Impacts	203-1	Infrastructure investments and services supported	Suppliers and traceability to plantation	10
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	103-2	The management approach and its components	Suppliers and traceability to plantation Approach to sustainability Smallholders and outgrowers	10 12 40
	103-3	Evaluation of the management approach	Suppliers and traceability to plantation Smallholders and outgrowers	10 40
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GRI 103: Management Approach	103-1	Explanation of the material topic and its Boundary	Approach to sustainability Anti-corruption and ethical policies	12 43
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	103-3	Evaluation of the management approach	Anti-corruption and ethical policies	43
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GRI 103: Management Approach	103-1	Explanation of the material topic and its Boundary	Protecting local water sources	30
	103-2	The management approach and its components	Protecting local water sources Fire monitoring and prevention	30 24
	103-3	Evaluation of the management approach	Protecting local water sources	30
GRI 303: Water and Effluents	303-1	Interactions with water as a shared resource	Protecting local water sources	30
	303-2	Management of water discharge-related impacts	Integrated pest management and chemicals Protecting local water sources	28 30

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	103-3	Evaluation of the management approach	Biodiversity protection	18
GRI 304: Biodiversity	304-1	Operational sites owned, leased, managed in, or adjacent to, protected areas and areas of high biodiversity value outside protected areas	Biodiversity protection Community land rights and partnerships	18 31
	304-2	Significant impacts of activities, products, and services on biodiversity	Biodiversity protection	18
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	304-4	IUCN Red List species and national conservation list species with habitats in areas affected by operations	Biodiversity protection	20
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	103-3	Evaluation of the management approach	Protecting local water sources	30
GRI 306: Effluents and Waste	306-1	Water discharge by quality and destination	Protecting local water sources	30
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	306-3	Significant spills	No significant spills recorded	

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GRI 103: Management Approach	103-1	Explanation of the material topic and its Boundary	Suppliers and traceability to plantation Approach to sustainability Smallholders and outgrowers	10 12 40
	103-2	The management approach and its components	Suppliers and traceability to plantation Approach to sustainability Smallholders and outgrowers	10 12 40
	103-3	Evaluation of the management approach	Suppliers and traceability to plantation Approach to sustainability Smallholders and outgrowers	10 12 40
GRI 308: Supplier Environmental Assessment	308-1	New suppliers that were screened using environmental criteria	Suppliers and traceability to plantation Smallholders and outgrowers	10 40
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	401-2	Benefits provided to full-time employees that are not provided to temporary or part-time employees	Rights of workers	35
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GRI 103: Management Approach	103-1	Explanation of the material topic and its Boundary	Approach to sustainability Rights of workers	12 35
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GRI 103: Management Approach	103-1	Explanation of the material topic and its Boundary	Approach to sustainability	12
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GRI 403: Occupational Health and Safety	403-1	Organisational health and safety management system	Protecting local water sources	30
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	403-4	Worker participation, consultation, and communication on occupational health and safety	Health and safety	36
403-5	Worker training on occupational health and safety	Health and safety	36	
403-6	Promotion of worker health	Food source programme	34	
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GRI 103: Management Approach	103-1	Explanation of the material topic and its Boundary	Non-discrimination	38
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GRI 103: Management Approach	103-1	Explanation of the material topic and its Boundary	Approach to sustainability Child labour	12 38
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GRI 408: Child Labour	408-1	Operations and suppliers at significant risk for incidents of child labour	Child labour	38
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GRI 103: Management Approach	103-1	Explanation of the material topic and its Boundary	Approach to sustainability Community land rights and partnerships	12 31
	103-2	The management approach and its components	Community land rights and partnerships Grievance mechanism	31 44
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GRI 103: Management Approach	103-1	Explanation of the material topic and its Boundary	Approach to sustainability Rights of workers	12 35
	103-2	The management approach and its components	Approach to sustainability Rights of workers Grievance mechanism	12 35 44
	103-3	Evaluation of the management approach	Approach to sustainability Rights of workers	12 35
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GRI 103: Management Approach	103-1	Explanation of the material topic and its Boundary	Approach to sustainability Community land rights and partnerships	12 31
	103-2	The management approach and its components	Community land rights and partnerships Grievance mechanism	31 44
	103-3	Evaluation of the management approach	Community land rights and partnerships	31
GRI 413: Local Communities	413-1	Operations with local community engagement, impact assessments, and development programs	Suppliers and traceability to plantations	10
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GRI 103: Management Approach	103-1	Explanation of the material topic and its Boundary	Suppliers and traceability to plantation Approach to sustainability Rights of workers Smallholders and outgrowers	10 12 35 40
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GRI 414: Supplier Social Assessment	414-1	New suppliers that were screened using social criteria	Suppliers and traceability to plantation Smallholders and outgrowers	10 40
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ABOUT THE REPORT

REPORT CYCLE AND APPROACH TO ASSURANCE

We report on a two-year cycle, and this is our third sustainability report. In addition to this report, we also include a detailed sustainability update included in our annual report every year. In addition, we provide ongoing updates on material issues on our website, and our stakeholders can also review our progress annually via our RSPO annual communications of progress published each year in Q3 and accessible from www.rspo.org/members/2551/BUMITAMA-AGRI-LTD.

We have not engaged third-party assurance, as we believe that our multiple certification audit provides adequate assurance on our performance to our stakeholders at this stage. The majority of content is documented in our RSPO audit reports, which are prepared by PT Mutuagung Lestari and which can be downloaded from www.rspo.org/en/principles_and_criteria_assessment_progress.

However, we will collate feedback from stakeholders on whether third-party assurance is a priority area.

MATERIALITY, STAKEHOLDER INCLUSIVENESS AND SUSTAINABILITY CONTEXT

Report content has been determined based on ongoing stakeholder dialogue and a review of issues that are critical to Bumitama.

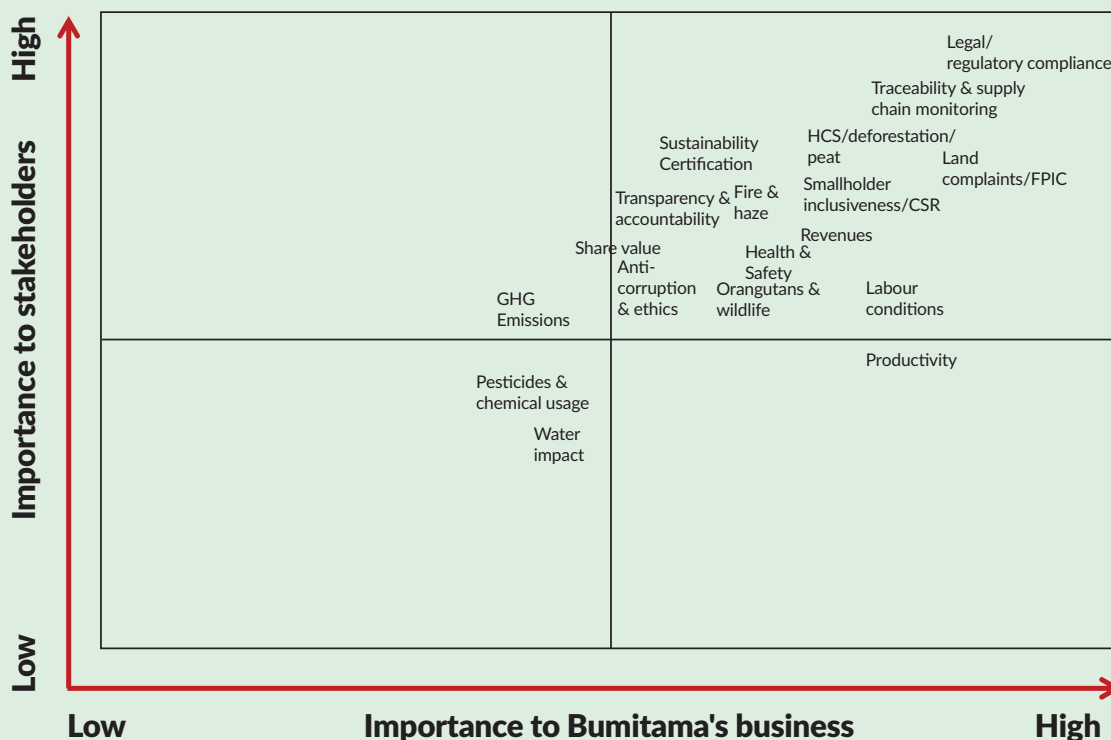
In developing our report content, we have worked with Helikonika, a consultancy with extensive experience in palm oil disclosure. Together, we have reviewed NGO and investor reports, as well as social media coverage. We have also engaged with our implementation partner Aidenvironment, a sustainability consultancy with close links to civil society, to help identify critical issues and expectations of Bumitama. We have also benchmarked our report content against disclosure platforms such as the Zoological Society of London's (ZSL) Sustainable Palm Oil Transparency Initiative (SPOTT), the Green Cats index and the CERES Reporting Guidance for Responsible Palm as we see these as a proxy to understand the indicators expected by a broad range of stakeholders. Finally, we have reviewed disclosures by peers in the industry to ensure that our report content meets best practice and is comparable to the sector leaders.

Based on this analysis, as well as internal discussions with management teams in Bumitama, we have reviewed our materiality matrix to reflect the changes in stakeholder expectations over the last two years.

With the exception of smallholders, boundaries were considered to be Bumitama's organisational boundaries.

Throughout the report we seek to provide an appropriate context for our performance, particularly in relation to the unique social and environmental landscapes in Kalimantan and Riau, Indonesia.

BUMITAMA'S MATERIALITY MATRIX 2018



GLOSSARY

Biodiversity

The diversity (number and variety of species) of plant and animal life.

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.

CO₂ Equivalents

Carbon dioxide equivalents (CO₂eq) provide a universal standard of measurement against which the impacts of releasing (or avoiding the release of) different greenhouse gases can be evaluated.

Effluents

Water discharged from one source into a separate body of water, such as mill process water.

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.

Free, Prior and Informed Consent (FPIC)

FPIC is 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 bunch (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.

High Conservation Values (HCVs)

HCVs are biological, ecological, social or cultural values that are considered outstandingly significant or critically important, at the national, regional or global level.

High Carbon Stock (HCS) Approach

The HCS Approach is a methodology to avoid deforestation in land development, initially developed in a partnership between Greenpeace, TFT and Golden Agri-Resources. 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.

Independent Director

According to the Listing Manual of SGX, an independent director is one who has no relationship with the company, its related corporations (i.e. a corporation that is the company's holding company, subsidiary or fellow subsidiary), its 10% shareholders or its officers that could interfere, or be reasonably perceived to interfere, with the exercise of the director's independent business judgement with a view to the best interests of the company.

Independent smallholder

Small growers with less than 50 hectares, which are self-financed, managed, and equipped and are not bound to any one mill. They may deal directly with local mill operators of their choice or process their own palm oil using personal or community manual palm oil presses (more common in Africa).

Integrated Pest Management (IPM)

IPM is the careful consideration of all available pest control techniques and subsequent integration of appropriate measures that discourage the development of pest populations and keep pesticides and other interventions to levels that are economically justified and reduce or minimise risks to human health and the environment. IPM emphasises the growth of a healthy crop with the least possible disruption to agro-ecosystems and encourages natural pest control mechanisms.

International Labour Organization (ILO)

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.

GLOSSARY

Indonesian Sustainable Palm Oil (ISPO)

The Indonesian Sustainable Palm Oil scheme is a mandatory certification scheme regulated by the Indonesian Ministry of Agriculture that aim to improve Indonesian palm oil competitiveness in the global market align with objective set by the President of Indonesia to reduce greenhouse gas emissions from Indonesian oil palm plantations and operations.

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.

Mass Balance

The Mass Balance system allows for mixing of RSPO certified and non-certified palm oil at any stage in the supply chain provided that overall company quantities are controlled. The mass balance model is constructed in such a way that volumes of RSPO certified product shipped will never exceed volumes received by the end-user.

Non-executive director

A board director who does not currently hold other employment with the company. Unlike an independent director, a non-executive can have significant financial interests or close personal ties to the company.

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 and Peatland

Peat is an accumulation of partially decayed vegetation matter. Peat forms in wetlands or peatlands, variously called bogs, moors, muskegs, pocosins, mires, and peat swamp forests. Land with soil having more than 65% organic matter is considered peatland.

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).

Roundtable on Sustainable Palm Oil (RSPO)

A multi-stakeholder organisation based in Kuala Lumpur, Malaysia. The organisation has developed a certification scheme for sustainable palm oil.

Segregation

The Segregation supply chain model assures that RSPO-certified palm oil and its derivatives delivered to the end-user come only from RSPO certified sources. It permits the mixing of RSPO-certified palm oil from a variety of sources.

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".

CONTACT

We welcome feedback from our stakeholders. Questions or comments on this report and our performance can be sent to:

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