



R.E.A. HOLDINGS PLC



Sustainability Report
2016

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SUSTAINABILITY REPORT 2016



R.E.A. HOLDINGS PLC

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Statement from the board of directors

Welcome to our third sustainability report, which describes our performance in 2015 and 2016. The global focus on sustainable development continues to evolve and intensify with additional and tighter regulations for the development and operation of oil palm plantations and mills. R.E.A. Holdings plc ("REA") is firmly committed to implementing the best practices that have been established by the Roundtable on Sustainable Palm Oil ("RSPO"), as well as the more recently established, largely regulatory based Indonesian Sustainable Palm Oil ("ISPO") standard.

The group is also ranked by the Zoological Society of London's ("ZSL") Sustainable Palm Oil Transparency Toolkit ("SPOTT"). The toolkit uses publicly available information regarding certification, supply chain traceability and environmental management policies to generate a score indicating a company's commitment to sustainability and transparency. In October 2016, the group was ranked joint ninth out of 50 palm oil companies. The group gained three points in 2016 by providing maps of concessions and encouraging smallholders to adopt policies of zero burning and no planting on peat soils. Despite this gain, the group ranked slightly lower overall than in 2015 (seventh), due to other companies also improving their overall scores.

RSPO certification for our third and only uncertified RSPO mill at Satria ("SOM") has been delayed by an outstanding high conservation valuation ("HCV") compensation liability at Satria estate, which supplies this mill. Early in 2016 a compensation plan was submitted to the RSPO, including a third party report indicating the location and extent of land clearing and a proposal to compensate for the cleared land. Once the plan is approved, the mill and its supply chain can undergo an RSPO audit. The original target deadline for the RSPO certification of SOM has been extended from December 2015 to December 2017, due to the time required to resolve the compensation liability.

There is a second outstanding HCV compensation liability for approximately 968 hectares of land cleared at Cipta Davia Mandiri ("CDM"). Although there is no mill at CDM, the group has submitted a compensation plan to the RSPO as part of its commitment to achieving full RSPO certification for the group in the future. CDM's HCV compensation plan is currently under review by the RSPO.

REA has continued to make significant progress during the last two years. Crude palm oil ("CPO") produced from International Sustainability and Carbon Certification ("ISCC") certified mills can be sold for the production of biodiesel that meets the requirements of the European Union Renewable Energy Directive ("EU RED"). In 2016, all three of the group's mills underwent an ISCC recertification audit. Certificates were issued for Perdana oil mill ("POM") and SOM by the Certifying Body, but Cakra oil mill ("COM") had to undergo a second audit in February 2017. The Certifying Body had requested a more in-depth analysis of part of an estate that supplies fresh fruit bunches ("FFB") to COM. This took longer than the three month period between audit and issue of certification permitted by ISCC regulations, which state that if the three month period is exceeded, a new audit must take place. The results of COM's second audit are expected in 2017.

For oil palm companies operating in Indonesia it is mandatory to maintain ISPO certification. POM, COM and SOM all successfully retained their ISPO certification in 2016.

In 2016, 127,696 tonnes of CPO and 9,840 tonnes of crude palm kernel oil ("CPKO") were produced by the group's three mills. 55 per cent of the CPO (70,427 tonnes) and 48 per cent of the CPKO (4,724 tonnes) produced was RSPO certified. 60,942 tonnes of the CPO that was RSPO certified was also ISCC certified. A total of 126,012 tonnes of CPO and 10,029 tonnes of CPKO were sold in 2016. Of this, 77 per cent of CPO sales were made under ISCC certification, while no CPO and only 23 per cent of CPKO sales were under RSPO certification.

The reason that little CPO and CPKO is sold under RSPO certification is that in the context of the overall market for such oils, the group's monthly production is relatively small and this makes the logistics of finding a suitable buyer challenging. Instead, the group uses the RSPO's "Book and Claim" system. Until the end of 2016, this allowed end users of palm oil products to support RSPO certified producers by purchasing from them Greenpalm certificates, such certificates being issued on the basis of one certificate for every one tonne of RSPO certified CPO or CPKO that the producer has elected to sell in the general market rather than as RSPO or ISCC certified oil. As of 1 January 2017, the RSPO no longer endorses Greenpalm certificates but in their place has launched its own Book and Claim system called "PalmTrace" which will operate similarly to the former Greenpalm system but with RSPO "credits" replacing Greenpalm certificates. During 2016 no sales of Greenpalm certificates were made due to the delay in the issuance of ISCC and RSPO certificates for COM, without which the group was unable to calculate the number of Greenpalm certificates available for sale in respect of 2016.

The group works hard to develop and maintain good relationships with the people that are impacted by its operations. Successful relationship building with surrounding communities is key to the group's ability to operate efficiently and reduce the frequency of compensation claims by villagers. Relationships with local communities have improved through regular formal and informal engagement with a wide variety of village groups and representatives by a team of village ambassadors, as well as a transparent approach to resolving claims of outstanding rights to compensation for land through the group's department of villager affairs ("DVA"). From time to time there will inevitably be disagreements with, and land rights claims from, the local population of over 60,000 people with which the group interacts. In 2016, 70 land rights claims were made against the group for a total area of 1,572 hectares, a reduction from 105 claims over 1,814 hectares of land in 2015. Only 45 of these 70 claims were found to be legitimate following investigation by the DVA. Most of these claims were successfully resolved by the end of 2016, but in some cases the resolution of a claim can be delayed when a claim by one person or group stimulates further claims for compensation by others.

Smallholders continue to play an increasingly important role in our business. During 2016, the group purchased a total of 93,000 tonnes of FFB from Program Pemberdayaan Masyarakat Desa ("PPMD"), plasma and independent smallholders, providing local farmers with a total revenue equivalent to approximately USD \$10.4 million. Although the quantity of FFB purchased in 2016 was smaller than in 2015 (125,000 tonnes), smallholder FFB still accounted for 16 per cent of the FFB processed in the group's mills, a proportion similar to 2015 (17 per cent). The reduction in the quantity of smallholder FFB purchased by the group is due to a general reduction in FFB productivity during 2016.

During 2016, in collaboration with the Indonesian National Electricity company ("PLN"), the group expanded the provision of electricity generated by the group's methane capture facilities to two additional local villages. The benefits to local communities from this project are significant. Prior to the establishment of this energy scheme, villages relied on diesel-powered generators for their electricity supply. The switch to methane-generated electricity not only provides communities with a cheaper, lower emission and renewable energy source, but also allows them to be more independent from the group as they no longer rely on donations of diesel from the group to run their generators. Renewable energy generated by the group is now provided to 26 villages, comprising approximately 13,000 households, through the infrastructure established by PLN.

The group also works to provide an improvement to the welfare of local communities by facilitating access to clean water. In 2016, the group completed the installation of five new water treatment facilities, two in villages associated with Sasana Yudha Bhakti ("SYB") and three in villages near REA Kaltim Plantations ("REAK"). Training is provided for treatment plant operators to encourage independence from the group and allows each village to have full control of the management and maintenance of their own resources.

The community development department ("ComDev") visited villages throughout 2015 and 2016 to further encourage independence and self-sufficiency amongst local communities by providing a mentoring scheme for small businesses and households and to provide donations in the form of equipment, expertise, or money where necessary to help villages improve their own roads, schools and other community facilities.

The group remains committed to implementing the internationally recognised Operational Health and Safety Management System ("OHSAS") 18001. In 2016 a new head of health and safety joined the company and reviewed the health and safety standards across the group's operations. Monthly inspections of the group's mills, estates and biogas facilities are undertaken to ensure planned health and safety measures are implemented in order to meet the criteria for OHSAS 18001 certification.

One of the greatest challenges in implementing a health and safety management system is the successful integration of rigorous safety protocols into the everyday working behaviours of employees. Regular training sessions are conducted to ingrain the importance of safe working practices into all employees and contractors. Routine training sessions include the appropriate use of protective equipment, first aid, fire safety and risk management for high risk tasks (working at height, in confined spaces or with chemicals). Following the widespread fires in Kalimantan in 2015, additional emergency response training courses were conducted for fires, which also included training for responding to chemical spills, explosions and riots. Roads in the region of the group's operations can be hazardous, particularly after heavy rain, therefore drivers of all vehicles are required to pass a company-set driving test and motorcycle safety training is provided for employees and their families.

Despite regular and routine training, it takes time for health and safety practices to become naturalised within a workforce. Although the group has made efforts to improve the safety of the working environment, the group's management must be confident that the OHSAS 18001 standard will be upheld on a daily basis throughout the groups' operations. It has been decided, therefore, that the target for obtaining OHSAS 18001 certification should be delayed until 2018.

Our business

Commitments and targets

Sustainability: from policy to practice

Responsible development

Protecting our natural capital

Working in partnership

Our employees

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Although measures are taken to minimise the occurrence and severity of accidents, incidents still occur. In 2016 there were 855 reported accidents, 690 of which resulted in a worker needing to take at least one day off work. Regrettably there were three fatalities between January 2016 and January 2017. Of these, one was work related and the other two were non work-related. The group treats any fatality within its premises extremely seriously and responds in the same way irrespective of whether the incident is considered to be work-related or otherwise.

Our commitment to conservation continues unabated and our dedicated team of conservationists, known as REA Kon, is working continuously to educate our employees, their children and the surrounding communities about the importance of conservation and the need to protect the 24,000 hectares we have set-aside as conservation reserves within our land concessions. Aware of the importance of minimising the environmental impact of its operations, the group incorporated a strategy for responsible development into the policy framework adopted at the beginning of 2015. This was to ensure that everyone, from in-house teams to third party contractors, involved in the process of planning and developing new land is aware of their responsibility to mitigate the negative impacts of development. As dictated by the group's policy for responsible development and the RSPO's new planting procedure, on which the group's policy is based, the process of developing new land begins with a series of surveys and assessments typically conducted by external experts. These assessments include environmental and social impact assessments, land use change analyses, assessments of HCV constraints, soil surveys and carbon stock assessments. Once collated, the results of these surveys and assessments inform the development teams as to the areas to be set aside for conservation. Conservation zones include culturally significant or biodiversity HCV management areas, steep areas, riparian zones and peat soil areas, in line with the group's commitment to avoid development of these high carbon stock areas.

The area designated as conservation reserves within the group's titled land bank totals approximately 23,950 hectares, accounting for some 34 per cent of the group's titled land area. REA Kon conducts routine biodiversity surveys, camera trapping and water quality monitoring to gain a scientific understanding of the biodiversity present in, and environmental state of conservation areas. As of December 2016, biodiversity surveys revealed a total of 551 species of mammals, birds, amphibians, reptiles, fish and invertebrates, of which 94 species are classed as "Near Threatened", "Vulnerable", "Endangered" or "Critically Endangered" according to the International Union for the Conservation of Nature's ("IUCN") Red List of Threatened Species. In 2016, 4 species of bird not previously recorded within the group's conservation areas were found: the crested goshawk (*Accipiter trivirgatus*), sooty-capped babbler (*Malacopteron affine*), garnet pitta (*Pitta granatina*) and rufous-winged philentoma (*Philentoma pyrhoptera*).

Conservation areas in four of the group's concessions also support a population of the Endangered Borneo orangutan. REA Kon monitors the orangutan population on a monthly basis by conducting nest surveys along permanent transects. Surveys conducted in 2016 confirmed the continued use of the group's conservation areas by orangutans, revealing evidence of recent feeding activity and the establishment of 26 new orangutan nests.

Despite these efforts, preventing the degradation of these conservation reserves is a continuing issue for the group and it is clear that many local villagers, especially the older generation, do not readily accept the concept of conservation. Following feedback from village leaders, during 2016 REA Kon marked the boundaries of conservation areas with visible posts and signboards to clearly delineate HCV land within the group's concessions. REA Kon also routinely patrols the edges of conservation areas to monitor for signs of human disturbance and to map areas damaged through human activity or fire. Despite REA Kon's continued engagement with local communities, there are still cases of encroachment into REA's conservation areas by loggers or independent farmers. Unfortunately, in 2016 a total of 461.5 hectares of conservation land was illegally cleared by third parties within the REAK, SYB and CDM concessions.

Managing the encroachment of conservation reserves is arguably the greatest sustainability challenge faced by the group. The problem is exacerbated by Indonesia's complicated land rights system. A standard operating procedure has been developed to ensure that the plantation, conservation, villager affairs and security teams fully understand their respective responsibilities in tackling encroachment and can respond quickly and effectively if logging or land clearing is detected within the conservation reserves. When an area of encroachment is reported by plantation teams or found during patrols, REA Kon visits the location to determine the extent of the affected area, the person or group responsible and the existence of any legal or customary rights. The matter is then passed to the group's department of villager affairs, which is responsible for determining whether a case requires compensation or prosecution and for proceeding with the appropriate action.

As we continue to grow our business, we expect to encounter both new challenges and new opportunities for innovation and consider both to be important drivers for continuous improvement. We will approach both in a way that is transparent, systematic and responsible. Whilst improvements in terms of increased yield or profits may not be immediate, we are confident that our hard work and investment will bear fruit and that we are creating firm foundations for a prosperous future.

We would like to take this opportunity to thank all of our employees for their hard work, commitment, loyalty and support for the continuous change necessary to create a culture that will ensure REA continues to be recognised as one of the world's highest quality oil palm companies and remains at the forefront of sustainable development.



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Section 1

Our Business



Operations and sales

R.E.A. Holdings plc (“REA”) has 20 years experience as a producer of palm oil products in the East Kalimantan province of Indonesia. The group acquired its first palm oil concession in 1991 and has since expanded to a total landbank of 108,215 hectares as at 31 December 2016, of which 70,584 hectares were fully titled and a total of 42,846 hectares had been planted with oil palm (Figure 1). The group is planning to develop a further 23,240 hectares of titled land into palm oil plantations across 9 of our newer concessions (see map on page 12/13). All new developments are in line with our policies on environmentally and socially responsible development (see “Responsible Development”, page 30).

The group operates three mills within our concessions, the newest of which was commissioned in 2012. These mills are supplied with and process oil palm fruits (“FFB”) from our own plantations as well as outgrowers, independent smallholders and smallholder schemes run by the group. Two of the mills, COM and SOM, operate kernel crushing plants, capable of producing CPKO as well as CPO. The two REA Kaltim mills, POM and COM, also house biogas facilities that generate clean, renewable energy using the main by-product of the CPO and CPKO manufacturing process (see “Community Development” on page 57). As our newer concessions are developed and start producing FFB, the group intends to commission two new mills, the first at our Putra Bongan Jaya concession (“PBJ”) and the second at CDM. Commissioning these mills will help to reduce the environmental and financial costs associated with the transport of large quantities of FFB from our newer estates to our existing mills.

We employ 8,380 people, over 99 per cent of whom work for the plantation subsidiaries based in Indonesia. The group has its headquarters at an office in London and regional headquarters based in Singapore.

In 2016, we produced 127,697 metric tonnes (“MT”) of CPO and 9,840 MT of CPKO, down from 161,844 MT of CPO and 12,557 MT of CPKO in 2015, despite a 0.6 per cent increase in the CPO extraction rate (Figure 2). The drop in CPO production was the result of a region-wide reduction in FFB yields following extended drought periods in late 2015. In 2016, 55 per cent of the CPO (70,427 tonnes) and 48 per cent of the CPKO (4,724 tonnes) produced was certified according to the RSPO standard. 60,942 tonnes of the RSPO certified CPO was also certified in accordance with the ISCC standard.

For the 2016 financial year, the group reported revenue of US\$79,265,000, down from US\$90,515,000 in 2015. All sales were domestic, within the Indonesian market. US\$563,000 of the revenue in 2016 was generated from the sale of electricity produced by the group’s two methane capture facilities to the Indonesian national electricity company, PLN, over double the US\$233,000 revenue generated from this source in 2015. Due to low FFB yields and development of newer concessions, the group’s operations have operated at a loss in both 2015 (US\$6.6 million) and 2016 (US\$5.0 million).

Figure 1: Total hectareage of planted oil palm

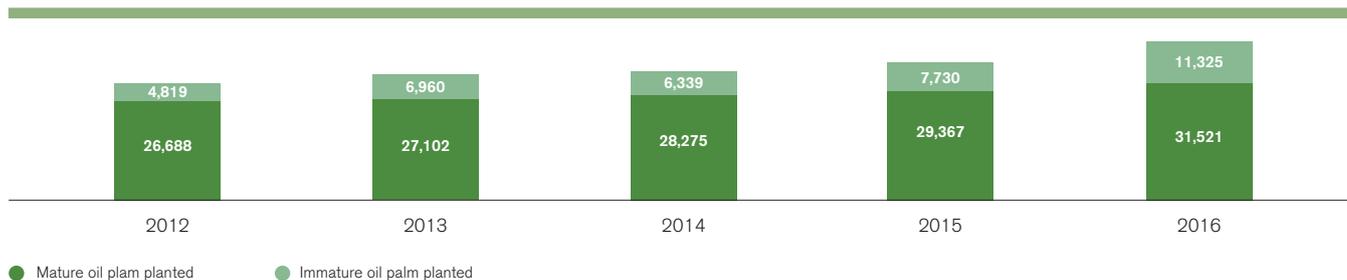
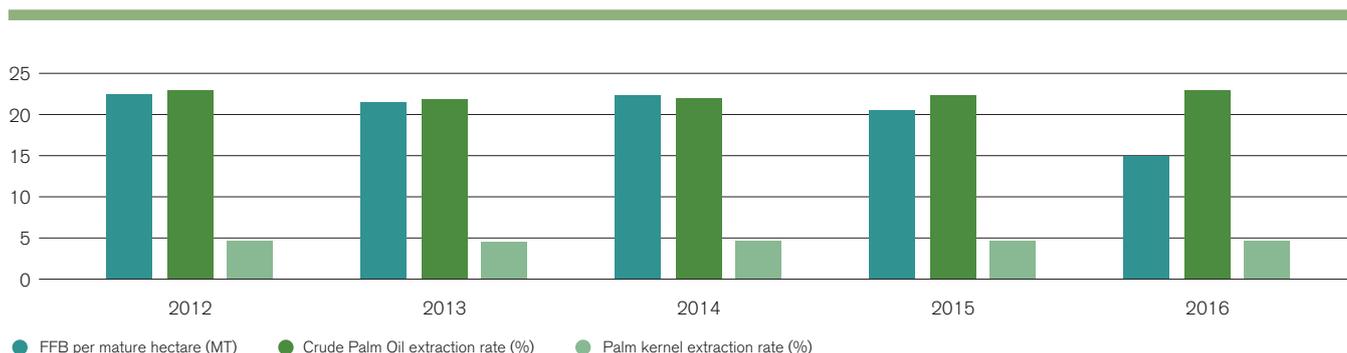


Figure 2: FFB yields and extraction rates



Kutai Mitra Sejahtera (KMS)

Acquired: 2008
 Fully titled area: 7,321 hectares
 First planted: 2012
 Planted area: 4,538 hectares
 Average palm age (weighted): 4 years
 Sustainability certification: RSPO New Planting Procedure completed in July 2011.
 Conservation reserves: 2,027 hectares
 Additional information:
 - FFB from KMS currently supplies the northern REAK mill (COM)
 - 860 hectares are to be transferred to a smallholder plasma scheme

Prasetia Utama (PU)

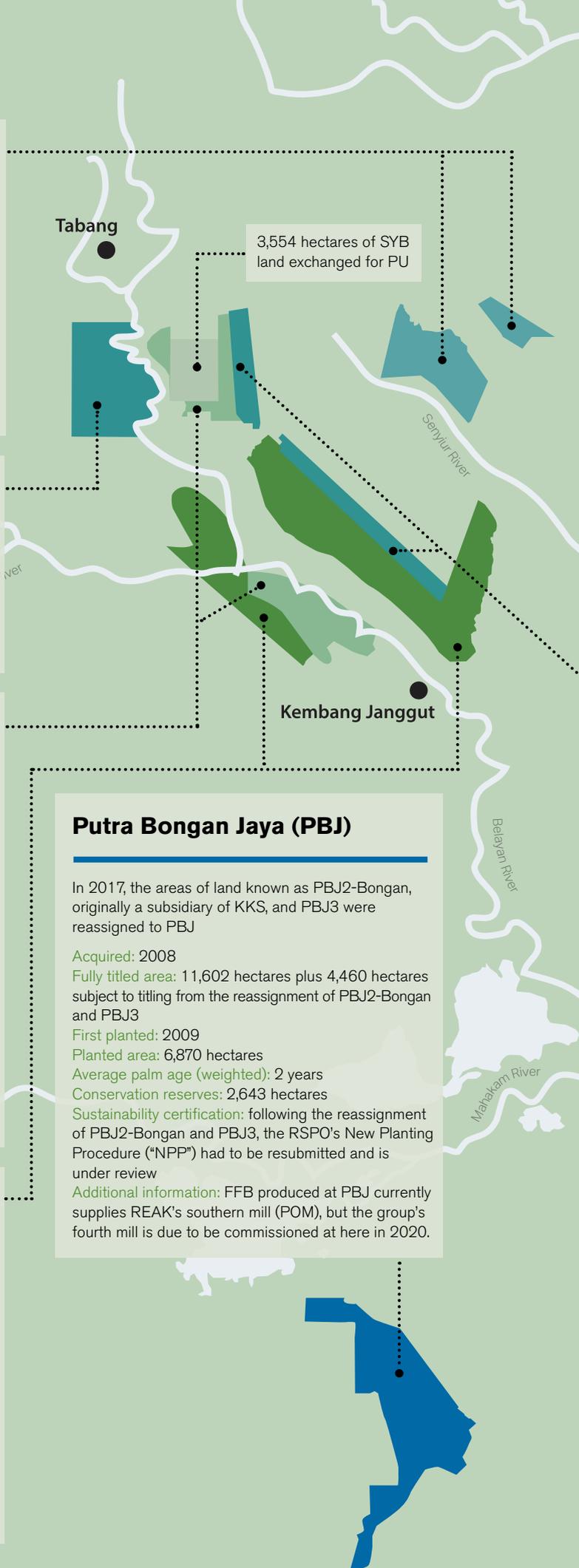
The agreement to exchange PU for 3,554 hectares of SYB land was implemented in July 2017
 First planting: Not yet developed for oil palm.
 Fully titled area: 9,097 hectares
 Sustainability certification: Currently undertaking RSPO New Planting Procedure

Sasana Yudha Bhakti (SYB)

Acquired: 2006
 Fully titled area: 11,771 hectares, 2,212 hectares subject to titling
 First planted: Satria estate first planted in 2008
 Planted area: 5,050 hectares
 Average palm age (weighted): 9 years
 Conservation reserves: 5,725 hectares
 Sustainability certification:
 ISCC re-certified in 2016. RSPO certification delayed until outstanding HCV compensation liability is resolved, expected end of 2017.
 Additional information:
 - Palm oil mill (SOM) with capacity of 40MT FFB/hour and palm kernel crushing plant. Commissioned in 2012. Land set aside for future methane capture facility.
 - 3,557 hectares of fully titled land (including 550 hectares planted oil palm and 1,450 hectares conservation reserves) and 2,212 hectares of untitled land to be traded with mining company PT.APT in exchange for the rights to 9,097 hectares of fully titled land owned by PU. Transaction due to complete in 2017.

REA Kaltim Plantations (REAK)

Acquired: 1991
 Fully titled area: 30,106 hectares
 First planted: 1994
 Planted area: 22,986 hectares
 Average palm age (weighted): 16 years
 Conservation reserves: 4,961 hectares
 Sustainability certification:
 RSPO and ISCC re-certification achieved in 2016.
 Additional information:
 - Two palm oil mills (POM and COM) with 80MT FFB/hour capacity. Both have methane capture facilities. COM has a palm kernel crushing plant.
 - Location of REAK central offices where senior plantation management and supporting departments are based.



Putra Bongan Jaya (PBJ)

In 2017, the areas of land known as PBJ2-Bongan, originally a subsidiary of KKS, and PBJ3 were reassigned to PBJ
 Acquired: 2008
 Fully titled area: 11,602 hectares plus 4,460 hectares subject to titling from the reassignment of PBJ2-Bongan and PBJ3
 First planted: 2009
 Planted area: 6,870 hectares
 Average palm age (weighted): 2 years
 Conservation reserves: 2,643 hectares
 Sustainability certification: following the reassignment of PBJ2-Bongan and PBJ3, the RSPO's New Planting Procedure ("NPP") had to be resubmitted and is under review
 Additional information: FFB produced at PBJ currently supplies REAK's southern mill (POM), but the group's fourth mill is due to be commissioned at here in 2020.



Our business

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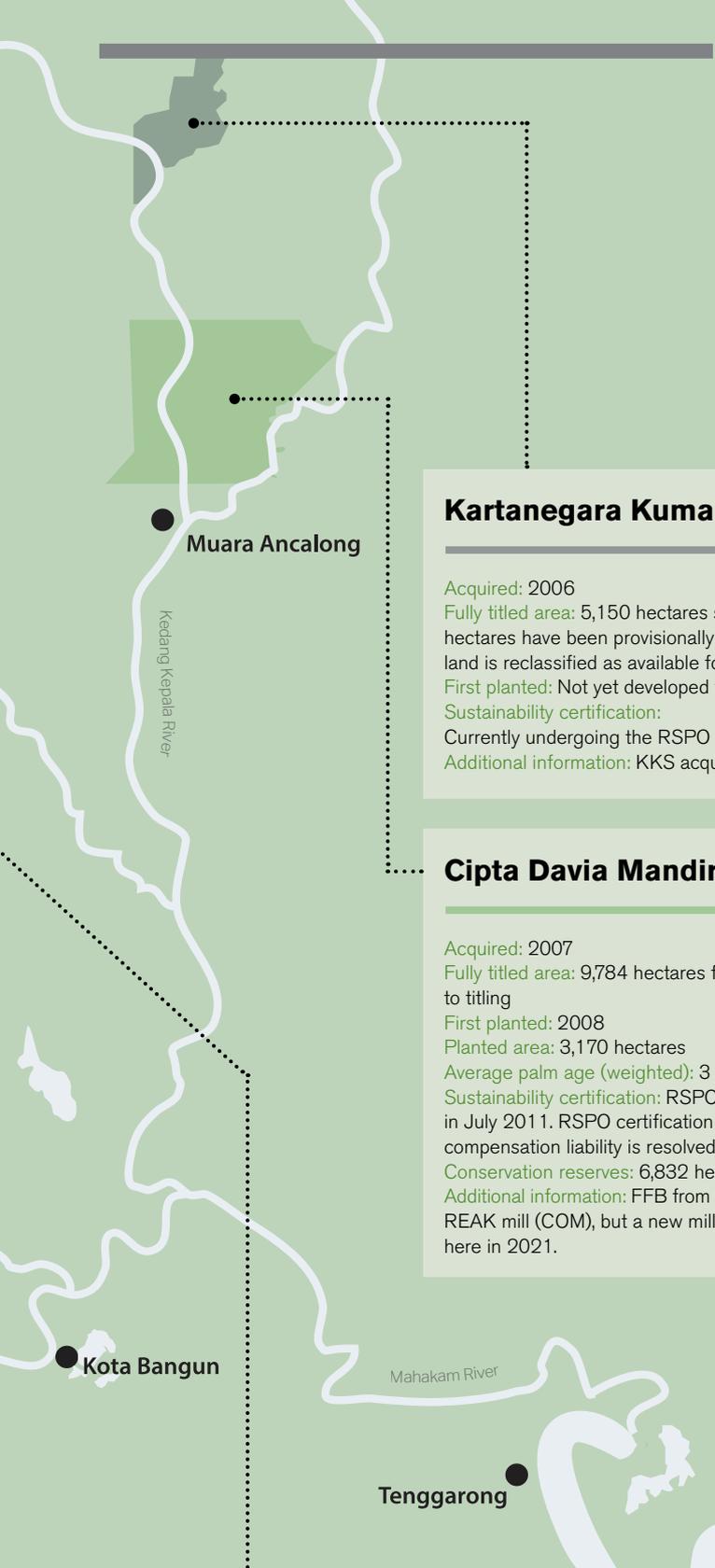
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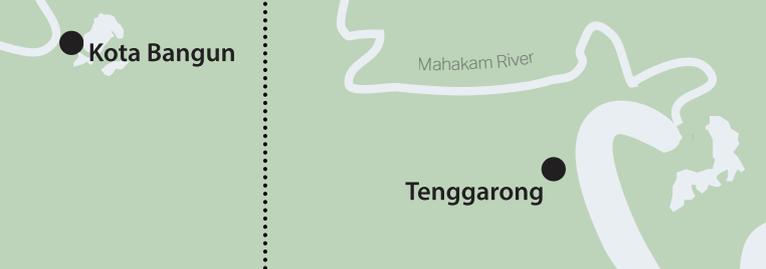


Kartanegara Kumala Sakti (KKS)

Acquired: 2006
Fully titled area: 5,150 hectares subject to titling. A further 12,050 hectares have been provisionally allocated to KKS if and when this land is reclassified as available for oil palm development
First planted: Not yet developed for oil palm
Sustainability certification: Currently undergoing the RSPO New Planting Procedure
Additional information: KKS acquired the subsidiary PBJ2 in 2012.

Cipta Davia Mandiri (CDM)

Acquired: 2007
Fully titled area: 9,784 hectares fully titled, 9,780 hectares subject to titling
First planted: 2008
Planted area: 3,170 hectares
Average palm age (weighted): 3 years
Sustainability certification: RSPO New Planting Procedure completed in July 2011. RSPO certification delayed until outstanding HCV compensation liability is resolved, expected end of 2017
Conservation reserves: 6,832 hectares
Additional information: FFB from CDM currently supplies the northern REAK mill (COM), but a new mill is expected to be commissioned here in 2021.

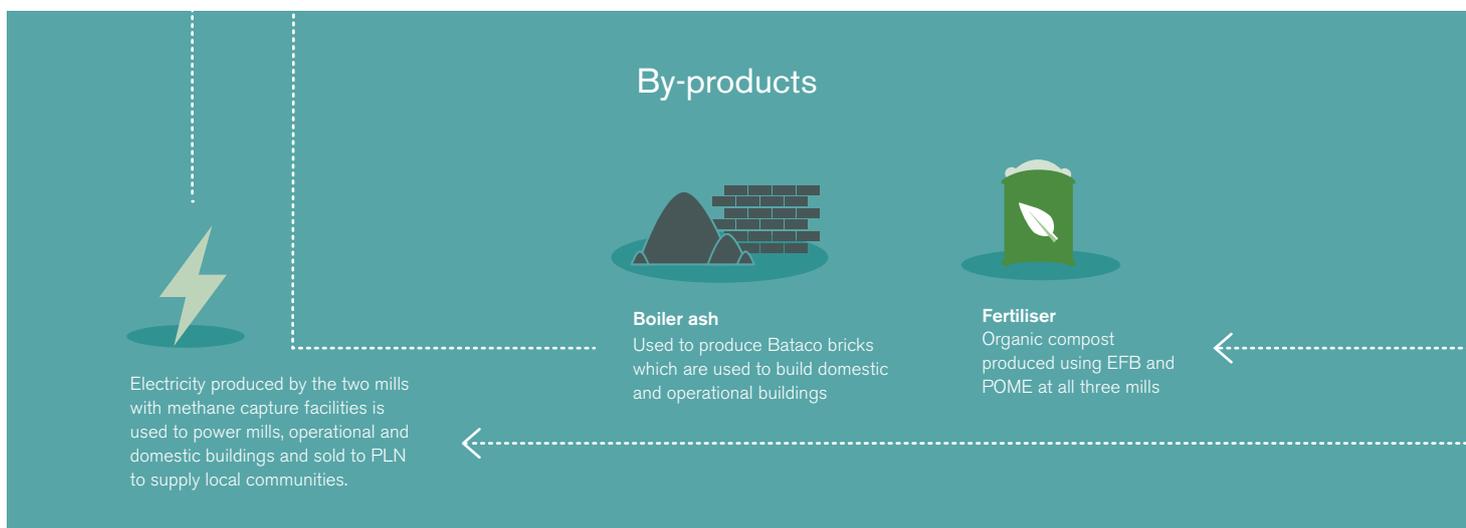


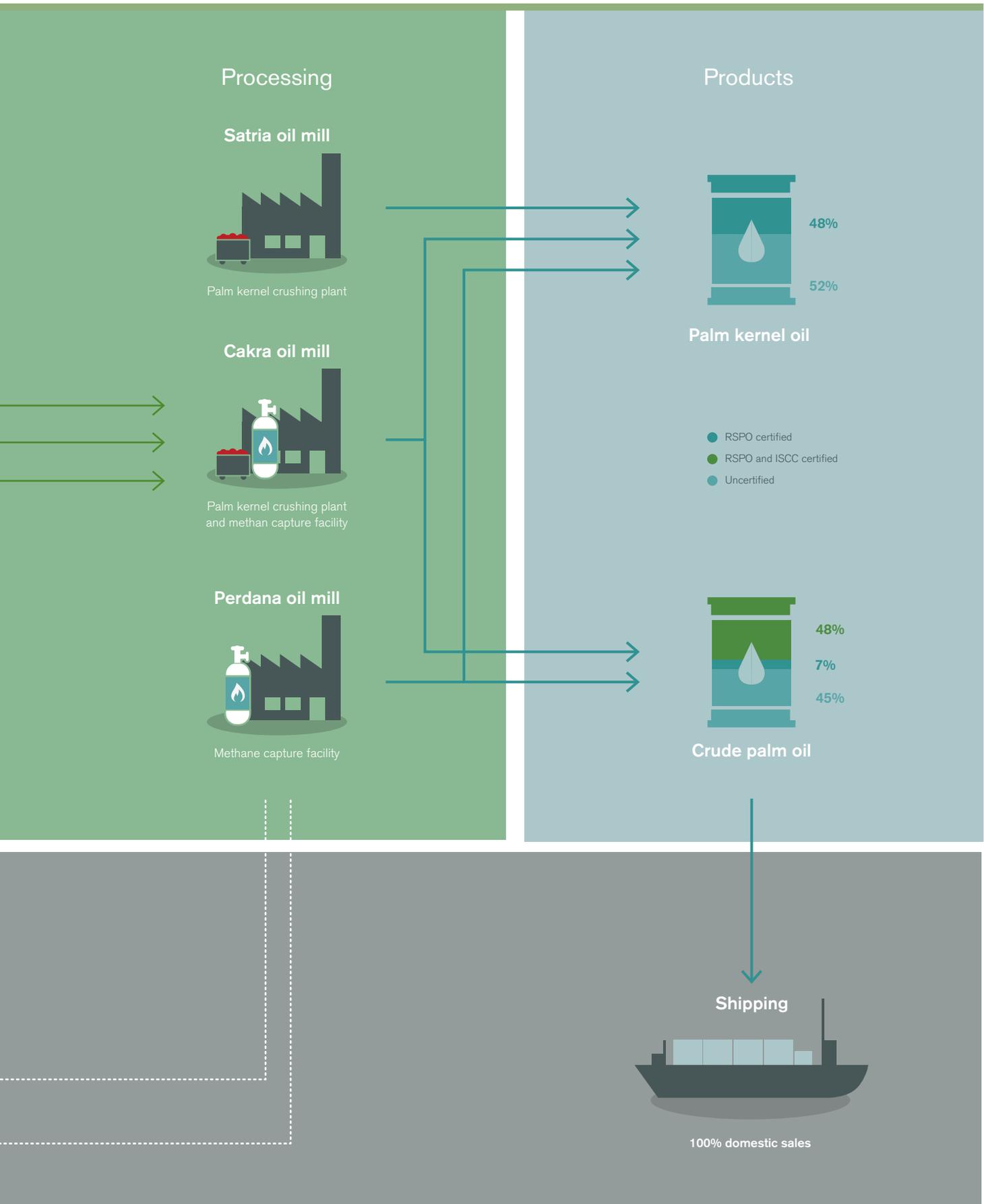
Persada Bangun Jaya (PBJ2)

Acquired: 2012
Fully titled area: 2,924 hectares subject to titling for the area of land adjacent to REAK ("PBJ2-Kaltim") and 2,345 hectares subject to titling for area of land next to SYB ("PBJ2-Satria")
First planted: Not yet developed for oil palm
Sustainability certification: RSPO NPP completed for PBJ2-Kaltim in 2014 and currently in process for PBJ2-Satria.



REA's business process





Corporate governance and management structure

REA is a premium UK public listed company, traded on the main market of the London Stock Exchange (“LSE”) and headquartered in London. REA is governed by the statutory obligations laid down in the Companies Act 2006 and by the UK Corporate Governance Code issued by the Financial Reporting Council. The board of directors is responsible for determining the group’s strategic direction, accessing and allocating finance, monitoring and mitigating risks and reviewing performance. The board comprises one executive director and five non-executive directors. Three of the non-executive directors, including the Chairman, are independent; the executive director and one non-executive director are female.

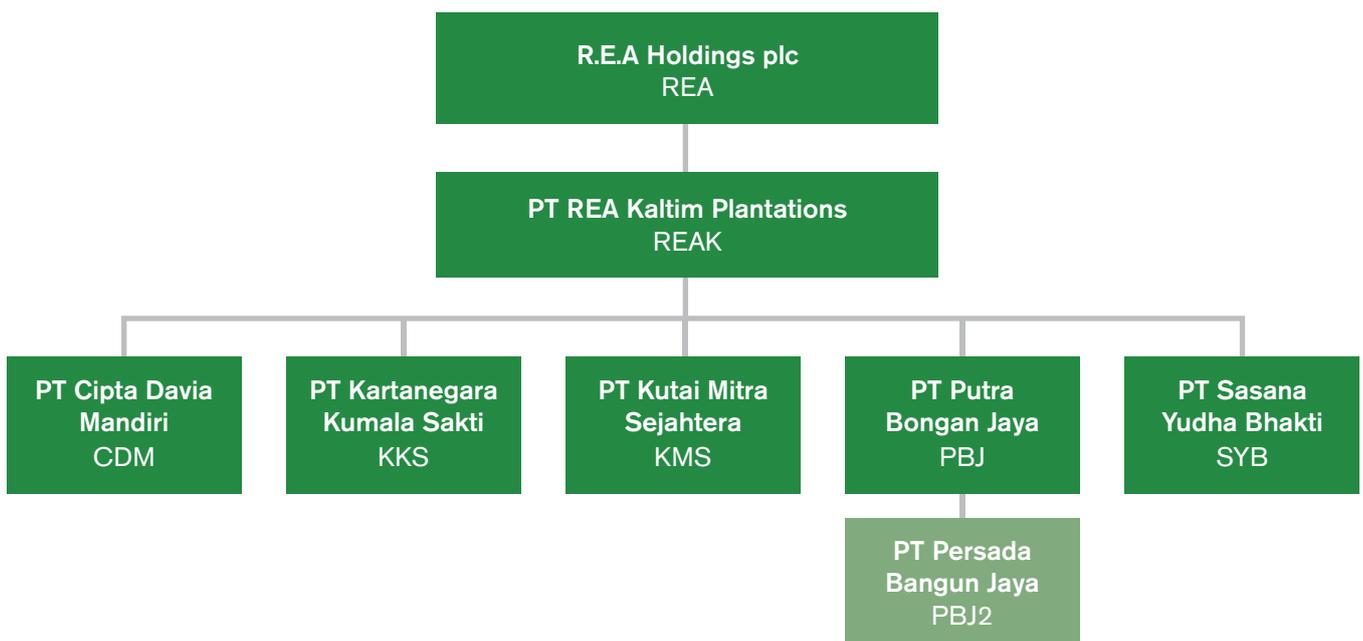
The board has four standing committees, of which the audit, nomination and remuneration committees are chaired by independent non- executive directors. Each standing committee has written terms of reference. Respectively, the committees are primarily responsible for:

- audit and internal controls
- appointments to the board, paying due regard to diversity
- remuneration of the chairman and executive directors
- matters of an executory nature and specific business with delegated authority of the board.

REA is the ultimate parent company of all of the group’s oil palm plantation subsidiaries in Indonesia. The plantation sub-group is headed by our longest established principal operating subsidiary, REA Kaltim which in turn holds majority interests (95 per cent) in five further plantation companies. As required by Indonesian company law, REA Kaltim and each of the other plantation subsidiaries are governed by a two tier board, comprising a board of commissioners and a board of directors. The board of commissioners acts as an advisory and supervisory body for the board of directors. Approval from the board of commissioners is required for the budget and work plan prepared by the directors prior to each financial year. All directors and commissioners are subject to appointment by the shareholders. The board of directors is responsible for designing and implementing management policies that meet the purpose and objectives of the company.

In December 2016, PT Dharma Satya Nusantara Tbk (“DSN”) completed an acquisition of a 15 per cent interest in REA Kaltim. DSN’s investment and provision of loans accords with REA’s long-held intention of increasing Indonesian participation in the plantation group. Such increased local ownership should help to facilitate the groups’ ability to operate in a political climate which increasingly favours greater Indonesian ownership of oil palm operations.

REA company structure



R.E.A. Holdings plc board of directors

United Kingdom 

 Non-executive Chairman British	 Executive Managing Director British	 Senior Independent Non-executive Director British
 Independent Non-executive Director Singaporean	 Non-executive Director British	 Non-executive Director British

PT R.E.A Kaltim Plantations board of commissioners

Indonesia 

 President Commissioner British	 Commissioner Indonesian	 Commissioner British
 Commissioner Indonesian	 Commissioner British	 Commissioner Indonesian

PT R.E.A Kaltim Plantations board of directors

Indonesia 

 President Director Indonesian	 Vice President Director British	 Finance Director Indonesian
 Director Australian	 Director Indonesian	

Business ethics

Our business ethics policy

- Compliance: all relevant international and national laws will be upheld
- Transparency: shareholders and stakeholders will be provided with all non-confidential information to enable informed and objective decision-making regarding their involvement with REA
- All financial records maintained for internal scrutiny or as required by regulations
- No political donations
- Zero-tolerance towards bribery. Facilitation payments are actively avoided and gifts may only be given with prior approval from senior management and the value declared
- Zero tolerance towards slavery or forced labour
- Management and employees are prohibited from using the group's facilities or working hours to conduct personal business

Within REA, and across all our business dealings, we are committed to operating in an ethical manner with honesty and transparency. Our Business Ethics policy, launched in early 2015 as part of our new policy framework, enshrined our principle of zero-tolerance towards bribery and corruption in line with the requirements of the UK Bribery Act 2010. For transparency, this policy is made publicly available through the group's website to allow both our stakeholders and employees to be aware of the ethical code by which we operate.

To ensure that employees at every level of the business understand the relevance and importance of our policy on business ethics, a full time internal audit team provides regular training sessions to each department and conducts detailed audits in order to monitor departmental compliance with standard operating procedures. The results of these audits are reviewed by the board of REAK and by the audit committee of the UK board of directors.



Managers of each department receive training

Section 2

Commitments and targets



Our ongoing commitment to develop land for plasma smallholder schemes

Our business

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Commitments and targets

Status of commitments and targets from 2014 Sustainability Report

Commitment	Target	Status
Certification		
Achieve the RSPO certification for REA's three existing palm oil mills	2015	Delayed. The time required to resolve the outstanding HCV compensation liability for the SYB mill has meant RSPO certification has had to be delayed until 2017. POM was successfully recertified in June 2016 but COM has yet to receive its certificate, despite verbal approval from the certifying body
Achieve RSPO certification for the two new palm oil mills that REA expects to commission in 2019/2020	2020 / 2021	Delayed. The development of the CDM mill has been delayed due to an outstanding HCV compensation liability that has taken longer than expected to resolve. The next mill will now be located at PBJ, with the intention of commissioning in 2020 and certifying in 2021, followed by the commissioning of a mill at CDM in 2021 and its certification in 2022
Biodiversity		
No new development prior to the completion of an HCV assessment by a RSPO approved HCV assessor	Ongoing	Achieved for all concessions where development began after this requirement was introduced by the RSPO
Map all encroachment within the conservation reserves and develop an action plan to restore these areas	2016	Ongoing. 461.5 hectares of encroachment into conservation reserves have been mapped but new areas have been found and are in the process of being mapped
Climate change		
No new development on peat	Ongoing	Achieved for all developing estates which undergo soil surveys prior to development
Reduce the intensity of greenhouse gas ("GHG") emissions per planted hectare	2016	Ongoing. GHG emissions per planted hectare increased in 2014 and 2015 due to the inclusion of three new estates in the scope of the calculations. GHG emissions per planted hectare were lower in 2016 and this reduction is expected to continue in future
Reduce the volume of water used to process each tonne of FFB in all three mills	2016	Water consumption per tonne of FFB processed decreased at COM from 2015 to 2016 but increased at POM and SOM
Health and safety		
No work-related fatalities	Ongoing	Two work-related fatalities in 2015,
Obtain OHSAS 18001 certification for REAK	2016	Delayed until 2018
Reduce lost time accident rates	Ongoing	Group lost time accident rates increased significantly from 2015 to 2016
Labour		
No employees under the age of 18	Ongoing	Achieved
Reduce employee turnover rates	Ongoing	Turnover rates have remained high into 2015 and 2016 due to company restructuring and cost-saving measures during periods of low FFB yields
Smallholders		
Develop PPMD and plasma smallholder oil palm plantings equivalent to at least 20 per cent of the total area planted by the REA group	Ongoing	4,068 hectares of plasma and 1,531 hectares of PPMD scheme plantings equivalent to 13 per cent of the total area planted by REA as at 31 December 2016. Land has been acquired to increase this percentage and is currently undergoing the appropriate assessments prior to development into oil palm (see "Responsible Development", page 30)

Commitment	Target	Status
Achieve RSPO certification for the mature associated smallholder plantings supplying REA's three existing mills	2015	Failed. No smallholders supplying the three mills are RSPO-certified. A bid for RSPO funding for a third party NGO to work with smallholders towards RSPO certification was unsuccessful. See page 63 for further details
Communities		
No new development without the free prior and informed consent ("FPIC") of local communities	Ongoing	Achieved for all currently developing concessions
Traceability		
100 per cent traceable supply base for all three mills	2016	Smallholder mapping and traceability project is complete for the two REAK mills (POM & COM) but ongoing for our third mill at, SOM

New and ongoing targets

Commitment	Target
Ongoing	
Achieve RSPO certification for REA's Satria palm oil mill	2017
Achieve RSPO certification for the two new palm oil mills REA expects to commission in 2020/2021	2021 / 2022
No new development prior to the completion of an HCV assessment by a RSPO approved HCV assessor	Ongoing
Map all encroachment within the conservation reserves and develop an action plan to restore these areas	Ongoing
No new development on peat	Ongoing
Reduce the intensity of GHG emissions per planted hectare	2017
Reduce the volume of water used to process each tonne of FFB in all 3 mills	2017
No work-related fatalities	Ongoing
Obtain OHSAS 18001 certification for REAK	2018
Reduce lost time accident rates	Ongoing
Develop smallholder oil palm plantings equivalent to at least 20 per cent of the total area planted by the REA group	Ongoing
Achieve RSPO certification for the mature associated smallholder plantings supplying REA's three existing mills	2025
No new development without the FPIC of local communities	Ongoing
100 per cent traceable supply base for all three mills	Ongoing
Zero deforestation in the development of new estates	Ongoing
No operations within internationally and nationally designated protected areas	Ongoing
Monitor fire hotspots	Ongoing
No use of chemicals listed under the Stockholm Convention and Rotterdam Convention	Ongoing

Section 3

Sustainability: from policy to practice



Engaging with younger generations to ensure a sustainable future

Our new policy framework

Throughout 2015 and 2016, REAK has been expanding its operations. With growth come both risks and opportunities. Global sustainability standards have also advanced during this time as the importance of whole supply chain sustainability is better understood by end consumers. In order to keep up to date with recent global sustainability standards, reduce risks and maximise profit from opportunities, the company's operational policies must be regularly evaluated and updated. In early 2015 the group adopted a new policy framework designed to incorporate all of the sustainability standards to which the company has already committed, or intends to commit in the future. Such standards include the RSPO's Principles and Criteria (2013), Supply Chain Certification Scheme (2014) and New Planting Procedure (NPP: 2015); the International Sustainability and Carbon Certification scheme (ISCC); Indonesia Sustainable Palm Oil (ISPO); International Standards Organisation's Environmental Management System (ISO 14001); the Occupational Health and Safety Management System (OHSAS 18001) and all relevant national and international regulations, including the UK Bribery Act 2010 and UK Modern Slavery Act 2015.

The full text of each policy is available to download from our website: www.reak.co.uk. The issues covered by each policy are discussed in the relevant sections of this report as shown below:

Business ethics, p.18

Responsible development, p.30

Environment and biodiversity conservation, p.33

Human rights, p.68

Health and Safety, p.72

Box 1: Deforestation and recent updates to the RSPO standard.

In November 2015, the RSPO launched a new scheme called "RSPO NEXT", a voluntary add on to the existing RSPO Principles and Criteria that incorporates additional criteria into the sustainability standard whilst expanding on existing principles. The components of RSPO NEXT fall into the categories of no deforestation, no fire, no planting on peat, reduction of GHG emissions, respect for human rights and transparency. As of 1 January 2015, the RSPO's NPP was also updated to make obligatory the reduction of GHG emissions during the development of new oil palm operations, and as of 1 January 2017 it is now mandatory to publicly report these emissions.

The increased interest in zero deforestation policies by certifying bodies and NGOs has led to a debate over the definition of deforestation. Currently, there is significant variation between countries and agencies how deforestation is defined. Problems in finding a universal definition begin with how to classify a forest. The United Nations Environmental Programme recognises over 800 definitions of forest, for example, which can vary based on a number of criteria, including minimum area size, tree cover or tree height. Clearing land that one county or institution classifies as forest may therefore not be considered deforestation by another. Add to this differences in opinion over whether deforestation occurs at the point of tree cover loss or not until the land has been converted for other purposes, and whether zero

deforestation should be measured in absolute terms (no removal of forest areas) or net (replanting of forest area equal in size to cleared land), and it would seem that the debate is unlikely to conclude any time soon.

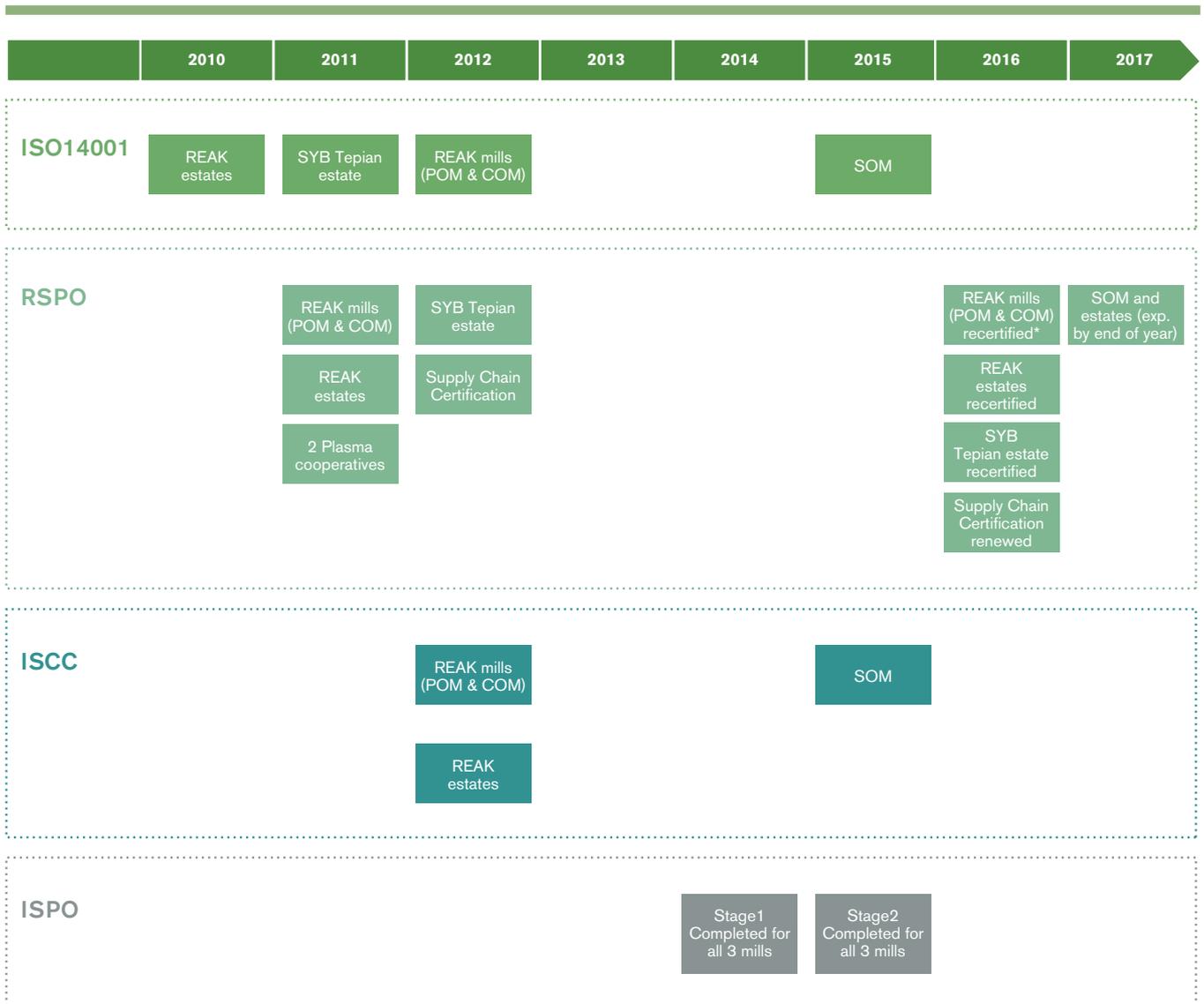
RSPO NEXT uses a carbon stock and conservation value approach for defining deforestation. In addition to the HCV and High Carbon Stock assessments required by the RSPO's NPP, NEXT requires further landscape level carbon stock and conservation value assessments to ensure that only areas of land with low carbon stock (defined as any area with above and below ground carbon stores that are equal to smaller than the resulting carbon stock if that land were converted to oil palm) are developed into oil palm.

The group is currently considering our eligibility for making the voluntary commitment to RSPO NEXT. Although we are already committed to the majority of NEXT principles and believe it possible for our own operations to comply, the same cannot be said for the independent smallholders and third party growers that make up a portion of our supply base. We remain committed to working with these growers in order to improve their agricultural practices and enhance the sustainability of our whole supply chain.

Sustainability certification

We believe that certification schemes for the oil palm industry are important as they provide third party verification that a company is operating according to national and international standards while encouraging the improvement of practices across the industry by establishing higher premiums for products. We therefore remain committed to ensuring that all of our plantations and mills achieve and maintain RSPO, ISCC and ISPO certification. The group initially used the ISO 14001 standard as a guide for managing its operations sustainably. We still maintain this standard across our operations but no longer undertake external audits for ISO 14001 as we believe that holding RSPO and ISPO certification suitably demonstrates our commitment to the best sustainable practices.

Figure 3: Sustainability milestones



* The certificate for COM was not issued until August 2017 due to a delay by the certifying body.



Roundtable on Sustainable Palm Oil (RSPO)

We have been active members of the RSPO since joining in 2007. The group's two oldest oil mills, POM and COM, were first certified in 2011. Between 2011 and mid-2016, these two mills, along with the estates that supply them with FFB, successfully maintained RSPO certification following annual assessments to monitor their compliance with the RSPO standard. In 2016, POM, COM and their supply chains underwent full recertification audits, as required every five years under the RSPO certification system. Both mills were successfully recertified and have been issued with formal certificates of compliance to the RSPO standard. The certificate for COM was not issued until August 2017, however, due to a delay by the certifying body to complete their assessment.

The group's third and newest mill, SOM, has yet to be RSPO certified due to an outstanding HCV compensation liability at Satria estate, which supplies the mill. Once the compensation is paid, the mill and its supply chain can undergo an RSPO audit. The original target deadline for the RSPO certification of SOM was December 2015, but, due to the time required to resolve the compensation liability, this deadline has been extended to December 2017.

The group has a second outstanding HCV compensation liability at CDM. Although the group does not currently have a mill at this location, we are committed to resolving this liability in order to achieve our goal of full group RSPO certification in the future. The group had originally intended that our fourth mill would be commissioned at CDM. Due to the the faster development of our PBJ estate and the outstanding HCV liability, the group has decided to delay the commissioning of a mill at CDM until 2021 in favour of building a mill at PBJ in 2020. The group hopes to undertake the RSPO audits for each new mill within one year of commissioning. Box 2 provides details of our progress on completing the compensation process for SYB and CDM.

Box 2: Progress of our HCV compensation liabilities at SYB and CDM

To resolve a compensation liability, the RSPO must first agree with the organisation on the extent of land in each concession that was inappropriately cleared for oil palm development. In 2016 the group submitted a third party assessment of land clearance at both SYB and CDM. This report indicated that the extent of land eligible for compensation (cleared without conducting an RSPO-approved HCV assessment) amounted to 20 hectares at SYB and 958 hectares at CDM.

The RSPO is currently still reviewing this third party assessment, but once an agreement has been reached the group proposes to compensate each liability by making a financial donation appropriate to the size of the liability to a conservation NGO. As the compensation liability at SYB is relatively small, the group intends to make a one-off lump sum donation. For the larger liability at CDM, one option for compensation would be to acquire land of an equal size and manage it for the conservation of biodiversity.

Although an attractive option in theory, the realistic probability of successfully acquiring a suitable piece of land in East Kalimantan in an appropriate time frame and protecting it over the long term is low, and most likely unachievable. We therefore believe that the most effective way to compensate for this land in terms of biodiversity conservation is to set up a long-term funding stream for an existing conservation foundation.

Once the RSPO has agreed upon the size of the liability, the group proposes that a financial sum equivalent to the size of the liability be donated over a period of 25 years to Yayasan Ulin ("The Ironwood Foundation"), a conservation foundation established by REA in 2009 to conserve the Mesangat wetlands, a large portion of which are contained within the Izin lokasi of CDM. Further information on Yayasan Ulin can be found on page 35.



The Mesangat wetlands, 6,250 hectares of which are contained within the location permit of our CDM concession

For 2015 and 2016 combined, 65 per cent of the CPO and 45 per cent of the CPKO produced by the REA group was RSPO certified. The CPO and CPKO produced by the group's mills are not 100 per cent RSPO certified because, along with FFB from our own estates, the mills are supplied by independent smallholders and outgrowers that are not RSPO certified. As the group holds RSPO Supply Chain Certification, we are still able to sell the above proportion of our production to buyers wishing to purchase RSPO certified sustainable palm oil ("CSPO").

The mass balance system allows certified palm oil to be mixed with oil produced from non-certified FFB, using an accounting system to track the corresponding proportion of certified oil at each stage in the supply chain. By permitting certified and non-certified CPO to be mixed, the mass balance system provides a platform for us to support and build relationships with independent smallholders through the purchase of their FFB. Relationship-building is key to improving the agricultural practices of smallholders, increasing their income and making their operations more sustainable. We remain committed to our long-term goal of achieving RSPO certification for all the independent smallholders that supply our mills. More information on our work with smallholder farmers can be found in the "Smallholder" section on page 59.

No physical CPO or CPKO was sold under the RSPO certification scheme in 2015 and only 2,300 tonnes of CPKO was sold under RSPO certification in 2016. Monthly production of these products is relatively small, in the context of the overall market for such oils, so the logistics of finding a suitable buyer are uneconomic. Instead, the group uses the RSPO's "Book and Claim" system, whereby until 31 December 2016 end users of palm oil products could support RSPO certified producers by purchasing GreenPalm certificates, even if they do not physically purchase oil from these producers. From 1 January 2017, the RSPO ceased their endorsement of GreenPalm certificates and in place launched its own Book and Claim system called PalmTrace to facilitate the sale of RSPO credits instead of GreenPalm certificates. One RSPO credit is equivalent to one tonne of RSPO certified CPO or CPKO. Box 3 provides the reasons behind the switch to PalmTrace and how this system differs from GreenPalm.

Meeting the demand for segregated palm oil products

The demand for book and claim certificates is anticipated to weaken in the future as global demand for segregated CSPO increases. Segregated CSPO is sustainably produced oil that is not mixed with non-certified oil at any stage of the supply chain. Producing segregated CSPO is an attractive prospect due to the large premiums gained in comparison to the mass balance system. As long as we receive FFB from non-certified smallholders, our CPO production and sales must follow the mass balance supply chain model. Until our entire smallholder supply base has achieved RSPO certification, there are only two options for proceeding towards segregated CPO production.

The first option would be to exclude all non-RSPO certified FFB from our supply base, meaning we would have to refuse FFB from many of our scheme smallholders and all independent smallholders. We do not see this as an acceptable option. Exclusion would require relatively little adjustment to our existing production and transport logistics in order to begin segregated CPO production but would have a significant negative socio-economic impact on local communities, inevitably resulting in the breakdown of our relationships with these communities and a return to less sustainable farming practices by smallholders. Given the time and capital investment we have made in forging good relations and improving the welfare of these communities, we see this strategy as a step backward, not forward.

The second option is to reconfigure our supply base, production and transport logistics to allow one of our RSPO-certified mills to produce segregated CPO, using FFB exclusively from our own certified plantations, while maintaining the mass balance approach at our other mills. This strategy presents significant logistical challenges that will require capital investment, but we believe that it represents the best option for achieving the higher premiums granted by segregated CPO sales while securing the most sustainable and prosperous future for local communities and our business. To this end, we are exploring the possibility of working with other members of our supply chain to help us make the intermediary shift from mass balance to segregated CPO production.

Box 3: PalmTrace vs. GreenPalm

The RSPO had endorsed GreenPalm since 2008. On 1 January 2017, this endorsement ended following the RSPO's decision to develop its own IT platform, PalmTrace, to register and trace all CSPO products across all four supply chain models (Identity Preserved, Segregated, Mass Balance, Book and Claim). The reasoning given by the RSPO for this shift was to make it more user friendly, cost effective and easier for members to register and trace their CSPO volumes. For several years GreenPalm had been criticised for the lack of product traceability and the open market that allowed GreenPalm certificates to be resold after being bought by non-producers (i.e. processors and traders). NGOs

and consumer groups stated that these factors allowed consumer companies to buy unsustainable palm oil and then greenwash their end products by buying GreenPalm certificates. In contrast, the PalmTrace system offers greater CPO product traceability and stricter controls on who is able to purchase RSPO credits. The following table shows some of the more significant differences between GreenPalm and Palmtrace.



Topic	PalmTrace	Greenpalm
Certification		
Who can sell credits?	RSPO certified mills, palm kernel crushers and independent smallholders only - no resale of credits permitted	RSPO certified mills, palm kernel crushers and independent smallholders. Traders, processors and manufacturers can resell credits they have previously purchased.
Who can purchase credits?	All RSPO members except mills, palm kernel crushers or independent smallholders	Any GreenPalm members
Trading period	Credits can be bought and sold as they become available at any point during the validity of their RSPO certification period	Calendar year (1 January - 31 December) with a grace period of three months
Trading entity	Each mill, palm kernel crusher and independent smallholder trades independently	Holding company level and/or individual mill/ smallholder
Validity of purchased credits	Can be redeemed at any time	Must be redeemed within one year from date of purchase

International Sustainability and Carbon Certification (ISCC)

ISCC certification allows a producer to sell CPO for the production of biodiesel that meets the requirements of the European Union Renewable Energy Directive (EU RED). The standards of this certification system are broadly similar to those of the RSPO. The two REAK mills first achieved ISCC certification in 2012 and SOM received its first ISCC in 2015. All three mills have successfully retained ISCC status since their initial certification. The majority of our CPO sales are through the ISCC system due to favourable premiums, and in 2016, 76 per cent of our CPO sales were through ISCC. In 2015, we did not sell any CPO through ISCC as the fall in the price of petroleum led to a decline in the consumption and demand of CPO for biodiesel. The group will continue to seek ISCC certification for any new mills in the future as long as it is commercially viable to do so.

Indonesian Sustainable Palm Oil (ISPO)

ISPO certification was introduced by the Indonesian government in 2010. All oil palm companies operating in Indonesia are obliged to be audited against the ISPO standard which is largely based on existing national regulations covering economic, environmental and social issues. ISPO certification occurs in two stages. All three of REAs mills completed the first stage in 2014 and the second stage in 2015. All three mills have maintained their ISPO certification through 2016.

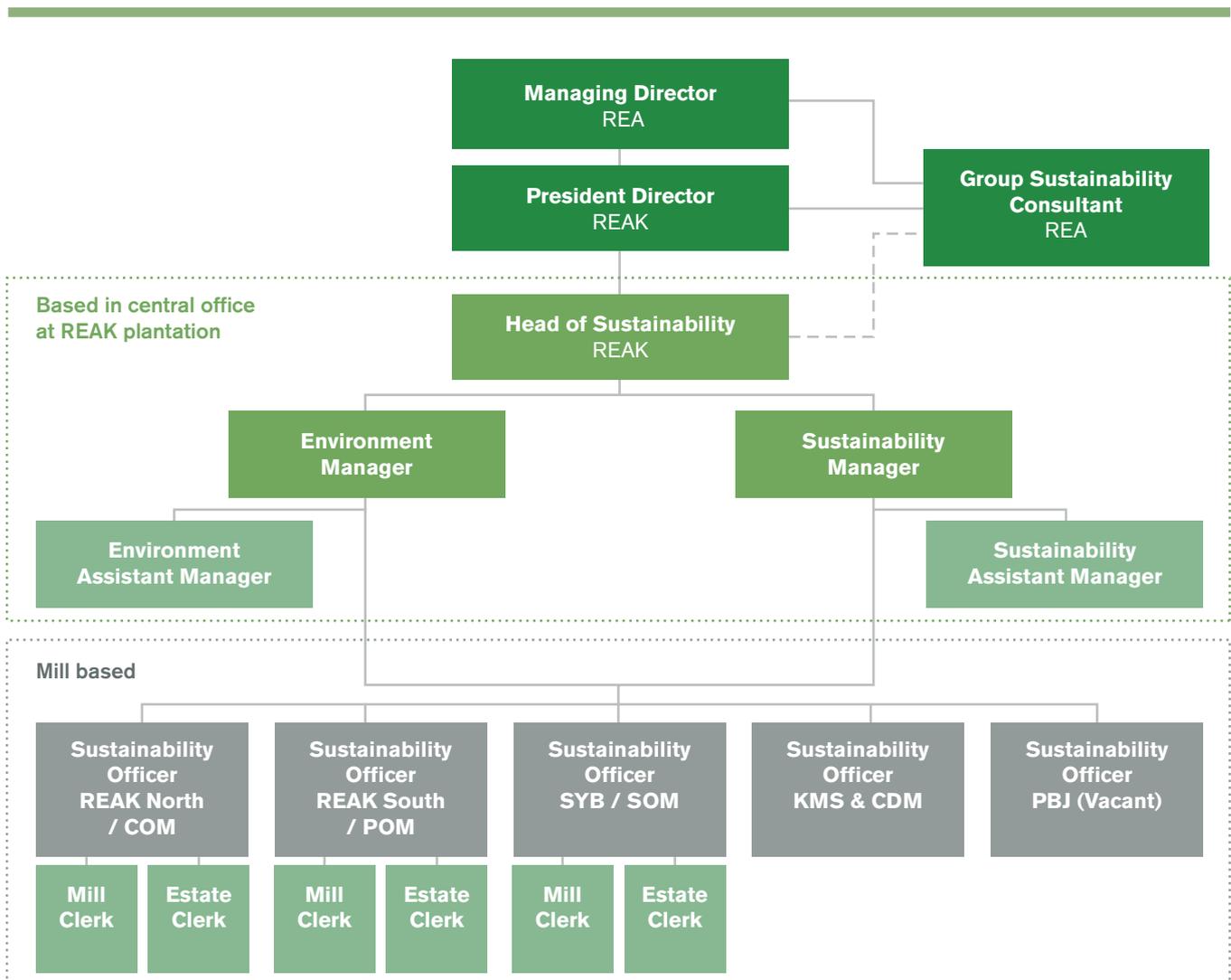
Creating a culture of sustainability

Certification schemes provide guidelines and targets for companies as a whole. Our goal at REA is to create a culture of sustainability that is embedded in every level of the organisation, so that each department and every individual is aware of the importance of their role in achieving sustainability across our operations. To this end, in August 2014 the group recruited a plantation-based Head of Sustainability who has since built a team of sustainability officers responsible for monitoring each of the group's estates and mills. This team expands as new estates are developed. The Sustainability Department is not just responsible for ensuring that each department complies with the standards of each certification scheme, but also provides regular in-house training on sustainability-related issues in an effort to ingrain sustainable working practices into the everyday operations of the group. The sustainability team also works with the heads of each department to develop key performance indicators for the workforce and sustainability agreements for third party contractors that are in line with our sustainability commitments.



Staff receive in-house training on the importance of sustainability and conservation

Figure 4: Sustainability Department Structure



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Section 4

Responsible development



Outline of responsible development policy

- Conservation of Biodiversity and Ecosystem function:
 - Prior to land clearing, an Environmental Impact Assessment (“EIA”) and High Conservation Value (HCV) assessment are conducted by an independent third party
 - Measures to mitigate negative environmental impacts are incorporated into the planning and management of newly developed areas
 - No development of HCV areas, steep slopes or riparian zones. Natural buffer zones are maintained around rivers and freshwater
 - HCV areas will be managed by REAK’s dedicated conservation department, REA Kon
- GHG emission reduction:
 - No planting on peat
 - Carbon stock assessment prior to land clearing
 - Zero burning
- Positive socio-economic impact:
 - Social Impact Assessment (“SIA”) conducted prior to land clearing by independent third party
 - Free, Prior and Informed Consent (FPIC) of communities will be obtained before development
 - Measures to mitigate negative and create positive social impacts incorporated into planning and management of newly developed areas
 - The rights of land use rights holders to give or withhold their consent to develop the land will be respected
 - Develop smallholder schemes for the benefit of local communities

We take seriously our responsibility to develop land according to the best practice guidelines and with respect for local communities. In 2015, we updated our policy and standard operating procedure for developing new plantations to reflect the requirements of the RSPO’s New Planting Procedures. The NPP stated that after 1 January 2015 a carbon stock assessment must be conducted prior to any land clearing and GHG emissions associated with the land use change reported. Undertaking the surveys required by the NPP can significantly delay land clearing and slow down the development of a new plantation, but the planning and development phase presents the best opportunity for mitigating negative environmental and social impacts associated with the development of palm oil plantations.

The land acquisition process is a critical phase of plantation development. Our procedure for acquiring new land involves engagement with local communities, community leaders and local government. This rigorous process is vital for providing clarity at the start of any development for both the group and local communities with respect to the location of existing village or property boundaries and the existing land use rights of individuals and communities. This phase of engagement allows us to begin building relationships with communities surrounding our operations and establish how our developments can help improve local villages. Any individual or community with existing land use rights has the right to refuse to transfer their land use rights to the company in return for the compensation offered. Only if FPIC is granted will the land acquisition and development process continue.

After land has been acquired, several surveys and assessments are conducted to ensure it is developed in the most environmentally conscious manner. For each new development, an EIA, HCV assessment, carbon stock assessment, soil survey and, if necessary, a hydrological assessment are conducted by RSPO-approved third party consultants. Together these surveys are used to create detailed land use plans that delineate areas unsuitable for palm oil development, including areas of peat soils, riparian zones including buffer zones of natural vegetation, HCV areas, high carbon stock areas and steep-sided land. Such detailed due diligence may be time consuming but it is essential to our ability to develop palm oil plantations in a sustainable manner.

The progress of each new and developing estate's NPP is given in Figure 5. The area known as PBJ2 adjacent to REAK ("PBJ2-Kaltim") has completed the NPP process and the area next to Satria estate ("PBJ2-Satria") has completed all the assessments and is awaiting a decision from the RSPO. Originally a subsidiary of KKS, the third region of PBJ2 ("PBJ2-Bongan") has been reassigned to PBJ, along with an additional area, PBJ3. As a result of this reorganisation of subsidiaries under the enlarged PBJ, the NPP process had to be restarted. The enlarged PBJ now needs to complete a revised land use change analysis and undergo an audit by an RSPO-approved third party before the final report can be submitted to the RSPO for approval. PU has completed all assessments except for a soil survey. KKS is less advanced than other new estates, with its environmental impact assessment in progress but only the soil survey completed.

Figure 5: Progress of the RSPO's NPP for new estates

	EIA	SIA	HCV	Soil survey	LUCA	CSA	NPP Audit	Submit Report to RSPO	Publish Notification by RSPO	NPP Completed
Enlarged PBJ (PBJ, PBJ2, Bongan, PBJ3)	Not started	Not started	Not started	Not started	Not started	Not started	Not started	Not started	Not started	Not started
PBJ2 Kaltim	Completed before 2015	Completed before 2015	Completed before 2015	Completed before 2015	Completed before 2015	Completed before 2015	Completed before 2015	Completed before 2015	Completed before 2015	Completed before 2015
PBJ2 Satria	Completed before 2015	Completed before 2015	Completed before 2015	Completed before 2015	Completed before 2015	Completed before 2015	Completed before 2015	Progress made in 2015/2016	Not started	Not started
PU	Completed before 2015	Completed before 2015	Completed before 2015	Not started	Completed before 2015	Completed before 2015	Not started	Not started	Not started	Not started
KKS	Progress made in 2015/2016	Not started	Not started	Completed before 2015	Not started	Not started	Not started	Not started	Not started	Not started

● Completed before 2015
 ● Progress made in 2015/2016
 ● Not started



Section 5

Protecting our natural capital



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Conserving biodiversity

Our Environment and Biodiversity Conservation policy

- Maintain HCV areas
- Designate and actively manage areas of High Conservation Value
- Protect Rare, Threatened & Endangered species
- Maintain soil fertility and prevent erosion by not planting in steep areas or riparian zones
- Minimise chemical usage
- Maintain the quality and availability of ground and surface water
- Minimise net (GHG) emissions
- Maintain air quality
- Maximise the use of renewable energy
- Reduce, re-use and recycle waste

Kalimantan, the Indonesian region of Borneo, is home to some of the most diverse and unique flora and fauna on Earth. This region also provides essential eco-system services that support plant, animal and human communities both within Kalimantan and beyond. Natural water cleansing processes and nutrient cycling in soils maintain the habitability and fertility of land across Kalimantan. Wetlands and rivers act as nursery areas for a wide variety of wildlife, maintaining populations within Kalimantan and beyond. The region's flora has a global role in climate regulation through the removal of carbon dioxide from the air via photosynthesis. The longevity of our business is inherently dependent on these same services that support the natural world. Operating in this region therefore comes with a great responsibility to do everything we can to protect this natural capital by minimising the environmental impact of our operations.

The conservation of biodiversity has been a long-standing commitment of the group. Even before we joined the RSPO in 2007 we conducted our own in-house environmental assessments to identify areas of high biodiversity and designate them for conservation. When developing new estates, we now follow the protocols set out in the RSPO's NPP and designate land to be set aside for conservation based on HCV assessments

conducted by third party RSPO-approved consultants. As at 31 December 2016, we had set aside approximately 24,000 hectares of land for conservation, accounting for some 23 per cent of the group's total landbank. This network of conservation reserves is actively managed by our dedicated conservation department known as REA Kon, an in-house team of experienced conservationists and local people.



REA Kon, our conservation department

REA Kon focuses on gaining a scientific understanding of the biodiversity present within and around the group's oil palm concessions and, through working with other departments and educating the workforce, ensures that we minimise any detrimental impacts on biodiversity from our agricultural operations. REA Kon also works closely with local villages to educate communities about the importance of biodiversity and engender a culture of conservation amongst our neighbours.

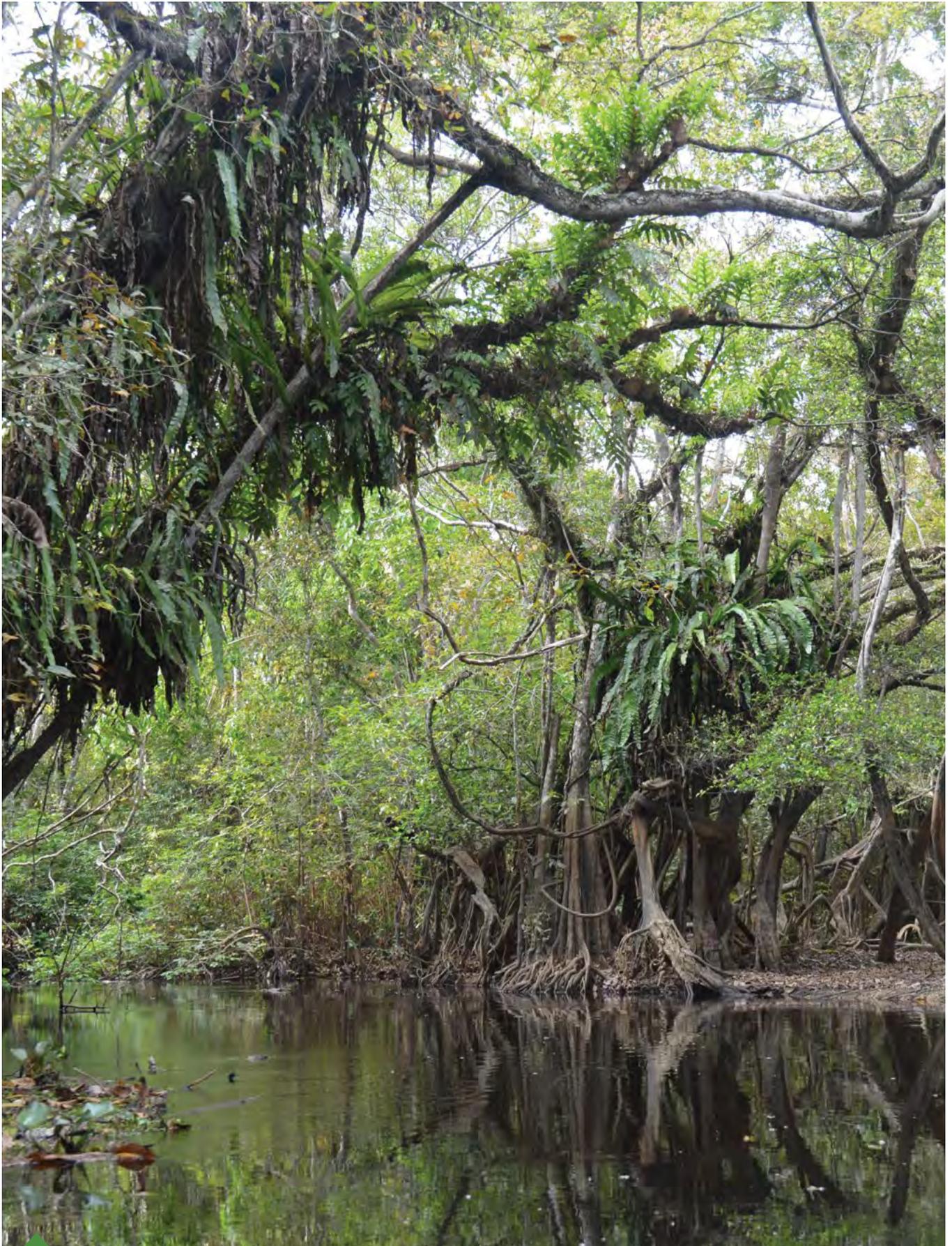
In 2009 the group established Yayasan Ulin (The "Ironwood Foundation"), a charitable foundation with the goal *"To contribute to and promote the conservation of species and natural habitats in East Kalimantan which are of ecological or cultural importance but are currently not formally protected."* Yayasan Ulin's activities have been focused on the Mesangat wetlands, 6,250 hectares of which lie within CDM's *Izin Lokasi*. The Mesangat wetlands are a vitally important ecosystem, acting as a nursery area for juvenile birds, fish, reptiles and

amphibians, which disperse as they mature to stock populations in neighbouring habitats. Wetlands are also home to a great variety of plants and invertebrates that act as the foundations of food webs, supporting populations of higher taxa. The ecological importance of this wetland therefore extends beyond the wetland itself, making its conservation absolutely essential if the biodiversity of the region is to be preserved. Throughout 2015 and 2016 the foundation's activities were limited to monitoring the water quality and use of the wetlands by local communities. In the near future REA hopes to set up a 25-year funding stream to the foundation as part of the HCV compensation liability for CDM (see Box 2, page 26). This will greatly enhance Yayasan Ulin's ability to actively maintain and enhance the natural biodiversity of the wetlands, promote conservation and the sustainable use of natural resources amongst local communities, and make the long term goal of securing the status of the wetlands as a recognised conservation reserve considerably more achievable.



Members of REA Kon host a conservation camp for school children in 2016

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The Mesangat wetlands in our CDM concession perform vital ecosystem functions

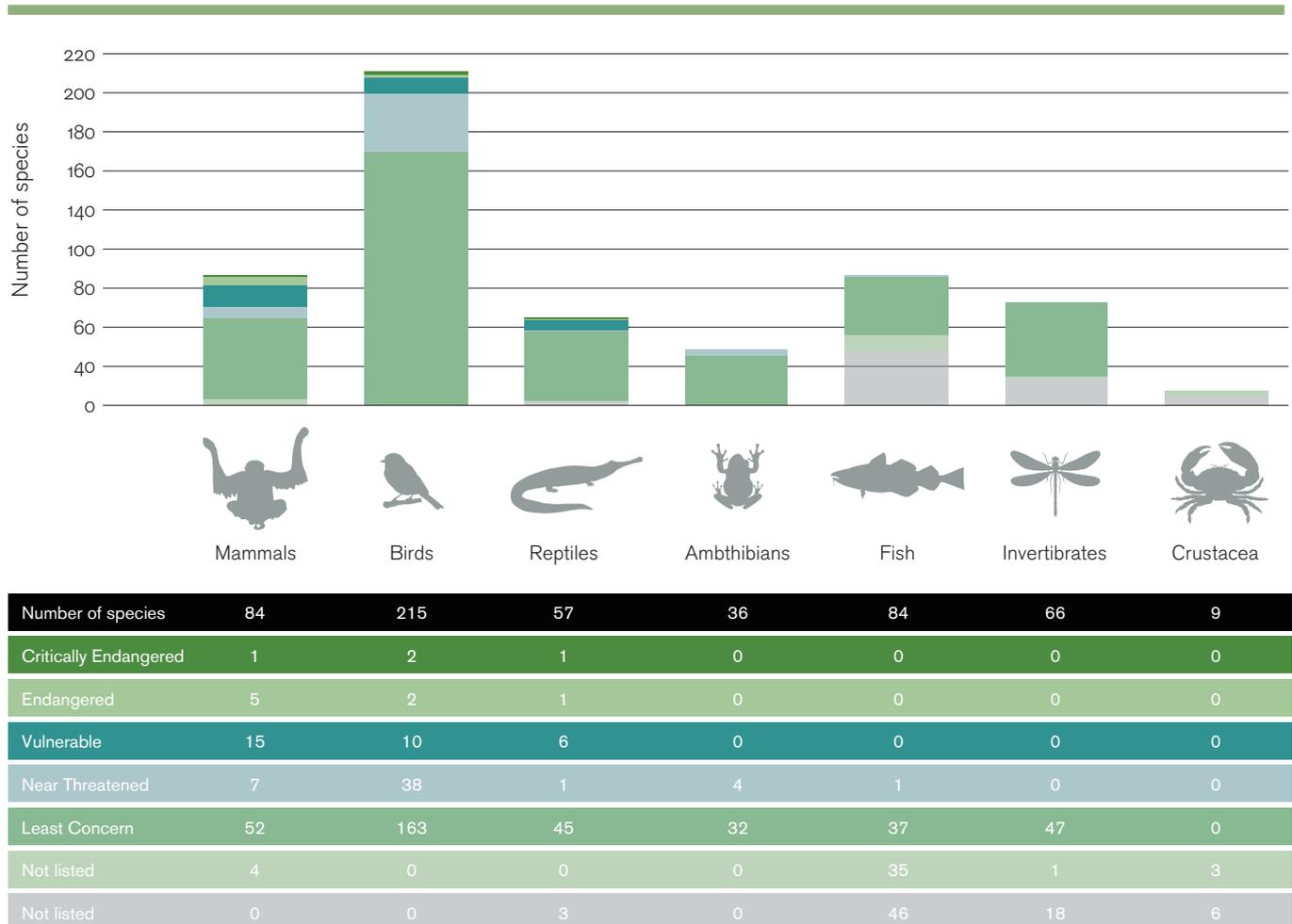
Rare, Threatened and Endangered Species

As part of their efforts to understand and monitor the wildlife present within the group's concessions, REA Kon conducts regular biodiversity surveys and camera trapping in our conservation areas, occasionally with assistance from visiting scientists. By the end of 2016, a striking 551 species of mammals, birds, amphibians, reptiles, fish and invertebrates had been recorded (Figure 6). 94 of these species are classified as "Near Threatened", "Vulnerable", "Endangered" or "Critically Endangered" according to the International Union for the Conservation of Nature's ("IUCN") Red List of Threatened Species. Surveys conducted in 2015 and 2016 detected four species of bird and two mammals that had not previously been

recorded within the group's conservation areas. The four bird species included the crested goshawk (*Accipiter trivirgatus*), sooty-capped babbler (*Malacopteron affine*), garnet pitta (*Pitta granatina*) and rufous-winged philentoma (*Philentoma pyrhoptera*), and the two mammal species were the white-headed weasel (*Mustela nudipes*) and the Clouded leopard (*Neofelis nebulosi*), which is listed as Vulnerable on the IUCN Red List.

Rare, Threatened and Endangered species found in the Mesangat wetlands include the Siamese crocodile (*Crocodylus siamensis*), False gharial (*Tomistoma schlegelii*), Storm's stork (*Ciconia stormi*), and Flat-headed cat (*Felis planiceps*). These wetlands are just one of three locations globally that have a confirmed population of the Siamese crocodile.

Figure 6: Number of species recorded within REA's oil palm concessions



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Threatened and Endangered species found within REA's oil palm concessions

Critically Endangered



Helmeted Hornbill
(*Rhinoplax vigil*)



Javan Blue-banded Kingfisher
(*Pardofelis marmorata*)



Siamese Crocodile
(*Crocodylus siamensis*)



Sunda Pangolin
(*Manis javanica*)

Newly recorded in 2015/16



Crested goshawk
(*Accipiter trivirgatus*)

IUCN status: Least Concern



Sooty-capped babbler
(*Malacopteron affine*)

IUCN status: Near Threatened



Garnet pitta
(*Erythropitta granatina*)

IUCN status: Near Threatened

Endangered



Bornean Gibbon
(*Hylobates muelleri*)



Flat-headed Cat
(*Prionailurus planiceps*)



Hairy Nosed Otter
(*Lutra sumatrana*)



Malaysian Giant Turtle
(*Orlitia borneensis*)



Orangutan
(*Pongo pygmaeus*)



Proboscis Monkey
(*Nasalis larvatus*)



Storm's Stork
(*Ciconia Stormi*)



White Rumped Woodpecker
(*Meiglyptes tristis*)



Rufous-winged philentoma
(*Philentoma pyrhoptera*)

IUCN status: Least Concern



Malay weasel
(*Mustela nudipes*)

IUCN status: Least Concern



Clouded leopard
(*Neofelis nebulosa*)

IUCN status: Vulnerable

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The Endangered Bornean orangutan has been found in conservation areas within four of our concessions. Whilst we consider their presence to be a privilege, we are fully aware that it is our responsibility to protect this population from the increasing human-orangutan conflicts arising from the fragmentation and loss of their natural habitat in Kalimantan. As further natural habitat is cleared to make way for monoculture crops such as oil palm, our conservation reserves play an increasingly vital role in providing refuges for orangutans. To monitor the population in our reserves, REA Kon conducts monthly nest surveys along permanent transects in our older concessions and surveys the abundance and health of 49 tree species known to provide food for orangutans in our KMS concession. Monthly nest surveys and camera trap studies throughout 2015 and 2016 revealed regular orangutan activity in our older concessions, and in February 2015 we were delighted to see an infant orangutan photographed by a camera trap.

In 2015, the group developed a formal collaboration with the Department for the Conservation of Natural Resources (“BKSDA”), outlined by a memorandum of understanding, which includes the provision of training to the REA Kon team for the effective management of human-wildlife conflicts. This collaboration started in response to a case in 2015 where a baby orangutan was discovered outside the forest by people from a local village. Despite not being found in one of our concessions, the villagers contacted REA Kon for assistance. Being an infant, it was feared the orangutan would not survive on its own if returned to the forest, so REA Kon arranged for BKSDA to collect the animal and transport it to a rehabilitation centre in East Kalimantan. We are pleased to have entered into this collaboration with BKSDA and believe their support will continue to improve our ability to protect the orangutans and their habitat within our concessions. We are also happy that the villagers in this case thought to contact REA Kon first, suggesting that REA Kon’s efforts to reach out to local communities and encourage conservation have had a positive impact.



An infant orangutan rides on her mother’s back

The threat of encroachment

The greatest conservation threat, and arguably the biggest sustainability challenge, faced by the group today is the ongoing encroachment of our conservation reserves through logging and agroforestry developments by local communities. This problem is exacerbated by Indonesia's complicated land rights system. In newly developing concessions, all legal and customary land use rights to the conservation reserves are identified and compensated through FPIC in the same manner as acquiring new land for oil palm cultivation. This can be a slow process, but it provides us with a legal platform from which to challenge any future encroachment attempts.



Encroachment of HCV set aside land

Our standard operating procedure for dealing with encroachment ensures that each department involved fully understands their responsibilities and can respond quickly and effectively if logging or land clearing is detected within the conservation reserves. Plantation, security and REA Kon teams perform routine patrols of conservation reserve boundaries, and maintain vigilance during daily FFB harvesting activities. When an area of encroachment is reported, REA Kon visits the location to assess the extent of the affected area, the person or group responsible, the existence of any legal or customary rights and the potential risk of further encroachment. The area of encroachment is mapped using GPS and the matter is

passed to the group's department of village affairs, which is responsible for determining whether a case requires compensation or prosecution and proceeding with the appropriate action. Occasionally, the perpetrator may also be a REA employee. In such cases, strong penalties, including the possible termination of contract, are applied. Once the legal process has been completed, REA Kon establishes the feasibility of restoring the natural vegetation and develops an action plan for each location where encroachment has occurred. REA Kon manages a nursery area of native species for the purpose of restoring the natural vegetation, but whilst it would be ideal to restore all locations with natural vegetation, the group's ability to do so depends on first obtaining the FPIC of any legitimate legal or customary land use rights holders.

Our standard operating procedure provides a framework for how each department responds to encroachment, but our goal is to prevent it from happening in the first place. To reduce encroachment from internal sources, the group's commitment to conservation and the strict penalties faced for clearing conservation land are communicated to employees at every level of the company through training. To try and limit encroachment from local communities, REA Kon conducts conservation education programmes in schools within REA emplacements and local communities. Engagement with village leaders produced feedback that there was confusion over the ownership and purpose of our conservation reserves. In response, REA Kon now operates a programme of marking the boundaries of conservation areas with visible posts and signboards to clearly delineate HCV land within the group's concessions to avoid much confusion.

Unfortunately, between the start of the mapping process in 2014 and the end of 2016, a total of 461.5 hectares of conservation land, close to 2 per cent of our total conservation reserves, had been illegally cleared by third parties within the REAK, SYB and CDM concessions. We will continue to work hard to focus our efforts on minimising future encroachment and restoring natural vegetation to affected areas.



REA Kon mark the boundaries of our HCV land with clear sign boards visible posts



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Water

Water security

Clean water is a vitally important resource for both our own operations and the communities surrounding our plantation, the majority of which are traditionally river-dwelling. Treated river water is also used to provide a source of fresh water to our plantation offices and worker housing. Our concessions are situated in remote locations in East Kalimantan and we would be unable to sustain our operations without an abundant supply of fresh water. Using water efficiently and avoiding the pollution of natural water courses is therefore a primary concern for the group.

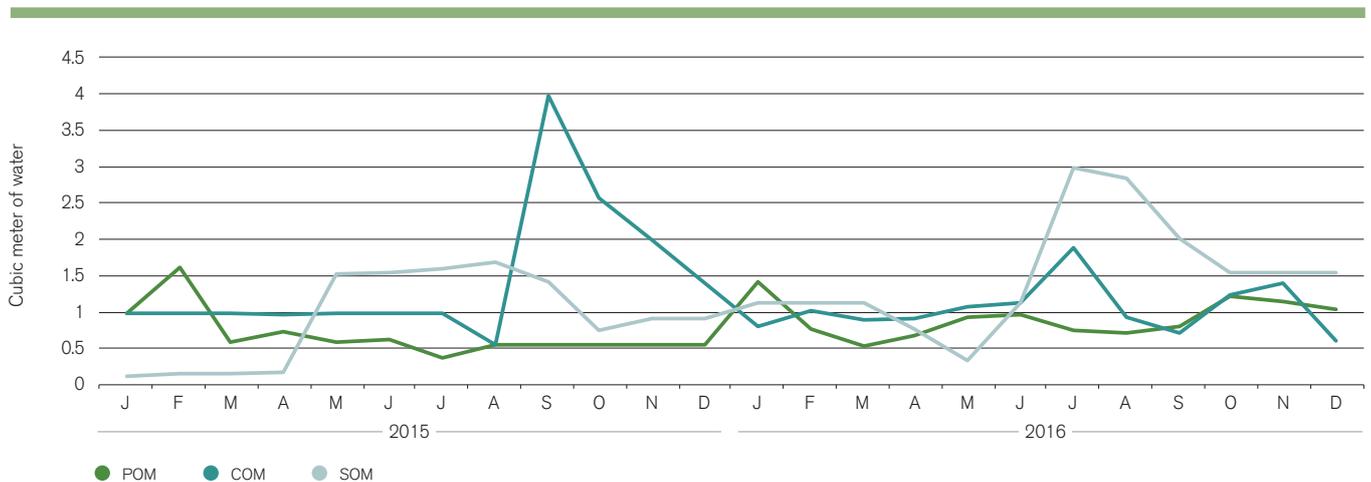
Oil palm requires approximately 2,000 millimetres per year of rainfall to achieve optimum yields. In 2015 the region experienced lengthy periods of drought in the second half of the year, with less than 70mm of rain on average falling each month from July to October. Our nursery areas are fully irrigated to help young trees become established despite low rainfall. Our mature plantations are not irrigated, therefore during drought periods we adjust our manuring and fertiliser program to accommodate the palms' natural defence mechanism of reducing their nutrient uptake (see "Adapting our fertiliser regimes", page 46. In a relatively small 500 hectare area of our mature estates we apply treated palm oil mill effluent (POME) to established trenches between rows of palms. This benefits the palms by providing moisture as well as nutrients, and through the drought periods of 2015, following into 2016, the areas to which POME was applied had the highest yields of FFB. We are currently in the process of acquiring the appropriate licences to expand our POME application areas to 1,800 hectares to reduce the impact of future droughts on FFB production.

We use treated river water in our three mills to process oil palm fruit. Since the end of 2014 flow meters have been installed in the mills to monitor and reduce as far as possible the quantity of water used. Over 2015 and 2016, POM used the least water per tonne of FFB each month with few exceptions (Figure 7), and had the lowest average monthly water use of the three mills in both years. Water use by COM and SOM was more erratic, with a spike in water use by COM in September 2015 and by SOM in July 2016. These increases in water use occur when rainfall levels are very low, and fresh water from the mill is used to meet the needs of employees and communities around the factories when their regular water sources are dry. During dry periods water is also sprayed on the roads and around company villages to keep the levels of dust in the air down, which can create unsafe driving conditions and have a negative impact on health.

Avoiding water pollution

Our mills operate a zero effluent policy, meaning that we do not discharge any by-products resulting from the manufacture of crude palm oil products into rivers or water courses. Despite adhering to this policy, there is still the risk of water pollution from POME and leaching or run-off from fertilisers. Untreated POME has a high organic matter content, meaning it has a high biological oxygen demand ("BOD"). When material high in BOD enters a water course, it uses up the oxygen present in the water as it decomposes, depriving aquatic plants and wildlife of oxygen. POME is not just a waste product, however. We can extract value from POME by using it to produce both a renewable source of electricity and organic compost. In so doing we are not only mitigating the risk of water pollution, but both the company and local communities benefit from the resulting products.

Figure 7: Water use per tonne of FFB processed in each of our three mills



Since April 2015 the majority of POME produced at POM and COM has been treated by anaerobic digestion at our two methane capture facilities, within which a series of generators convert methane produced from the organic content of the POME into electricity and distributed across our operations. Following completion of the electrical grid by PLN in 2015, electricity generated is now also provided to local communities. The methane capture facilities are enclosed systems, meaning that the risk of untreated POME polluting the environment is negligible.

The second use for POME is the production of organic compost. Our third mill, SOM, does not yet have a methane capture facility, therefore POME produced at SOM and any POME that exceeds the capacity of the methane capture facilities at POM and COM is mixed with empty oil palm fruit bunches on site at each mill. Composting areas are bunded to avoid the run-off of excess POME entering nearby water courses, and the increased use of compost has allowed us to reduce the quantities of inorganic fertilisers applied, which in turn has reduced the risk of fertiliser run-off and leachate from polluting sources of fresh water.

POME that exceeds the requirements of composting, and that which has been processed through the methane capture plants, is treated in the traditional way of anaerobic digestion in a series of open ponds at each mill. Monthly testing of the POME in the final pond at each mill is conducted to ensure the BOD level is below the 5000mg/litre legal limit in Indonesia. Treated POME that meets the Indonesian government's criteria for safe land application is then pumped to specially constructed flat beds between rows of palm trees so that the remaining nutrient content of the POME can be utilised as fertiliser. In 2015 and 2016 the group constructed bunding around ponds and embankments around flat beds in order to prevent POME overflow onto neighbouring land during periods of heavy rain.

Despite continuous monitoring and investment in order to mitigate potential pollution by POME, we received eight complaints of pollution from local communities in 2015 and 2016. Two of the four complaints made in 2015 and one in 2016 were found to be false (Box 4). We take all complaints seriously and investigate each report to identify the cause of pollution in collaboration with representatives from local villages and the local environment department (Badan Lingkungan Hidup). Remedial action is then taken and compensation paid to communities where appropriate.



Routine water tests are performed to check for pollutants

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Box 4: Water pollution complaints and actions taken.

Commitment	Target	Status		
Certification				
April 2015	Kembang Janggut village reported a CPKO spillage in the Belayan river	Yes	Whilst transferring CPKO from a truck to the transport barge the transfer pipe came loose from the barge and CPKO entered the river	A sample of the contaminated water was analysed by a laboratory. Tests showed the level of CPKO contamination was below the threshold permitted by government regulations. No further action taken
May 2015	Village of Long Bleh Modang contacted the Environment Department (BLDH) complaining that four mining companies and REA Kaltim had polluted the river Penoon	No	BLHD visited the site to investigate the complaint but found no evidence that REA was polluting the river Penoon	None required
May 2015	Keleket village complained of POME pollution from REA operations	Yes	Whilst POME was being transferred from an open treatment pond to the compost area, the pipe moved resulting in POME spilling onto the road	The POME was cleaned from the road. The village requested monetary compensation, but given the small extent of the incident REA did not believe the claim to be valid and the village dropped their claim
August 2015	An organisation called 'Laskar Pemuda Adat Dayak Kaltim', associated with Pulau Pinang village, claimed that REA had polluted the Sentekan & Belayan rivers	No	The automatic pump at POM's fat pit broke, resulting in sludge from the fat pit overflowing, entering the drains in some planted areas of Perdana estate and starting to flow in the direction of the Sentekan and Belayan rivers	A water sample was taken and laboratory tested. Results showed that the water did not contain any pollutant concentrations that were outside of safe thresholds. BLHD conducted a ground investigation and did not find any evidence that pollution had reached the Sentekan or Belayan river. No further action required
February 2016	Village of Desa Bukit Layang complained that POME from the composting area at COM contaminated water that passes through their village	Yes	High rainfall (>100 mm per day) caused the buffer pool at the composting area to overflow into the surrounding environment	Levees around the pond were repaired and bunding constructed to accommodate any future overflow. BLHD conducted field verification studies alongside representatives from REA and the community

Commitment	Target	Status		
March 2016	The village of Penoon complained that some of their rice crops had died due to PKC waste water that overflowed from one of REA's planted areas into their rice field	Yes	High rainfall caused flooding in the planted block, resulting in the contamination of the rice field	Field verification of the incident was performed and the PKC in that block was moved to landfill
May 2016	Complaint from Penoon village that POME applied to a flatbed in Satria Estate had overflowed into the community field	Yes	Caused by an act of negligence by the officer in charge of POME application, leading to the overflow of POME out of the flatbed and into the community field	Repairs made to flatbed and embankment constructed around flatbed to prevent future overflow
August 2016	Effluent from a drain outlet at PBJ entered Muara Kedang River and flowed to PT Suryabumi Tunggal Perkasa.	No	Water was observed flowing from the outlet at PBJ into the river.	Surface water was collected from the outlet at PBJ and tested for pollutant concentrations. No pollutant concentrations were found above government safety thresholds. No further action required.

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Adapting our fertiliser regimes

Achieving maximum palm fruit yields with minimal cost, GHG emissions and water pollution requires careful management of our inorganic fertiliser inputs. Increasing our use of organic compost has reduced the amount of inorganic fertiliser used since 2009 (Figures 7 & 8). Compost production relies on the quantity of FFB processed in each mill. During 2015 and 2016, FFB yields were low, and consequently the amount of compost produced and used was lower than in previous years. The reduction in compost production was compounded by the increased POME demand of our methane capture facilities. POME that has already been processed by our biogas facilities does not effectively produce compost from empty fruit bunches, as digestion cools the POME and removes nutrient content. The growth in electricity demand as further local villages are connected to the grid has resulted in more POME being diverted to our methane capture facilities, and consequently less POME was used for compost production.

The POME demand of our biogas facilities is only likely to increase, therefore we have decided to reduce our compost production and apply empty FFB shells around the palms directly as a mulch in order to gradually improve and maintain soil quality. Once we have obtained the relevant licences, we intend to expand our network of flat beds between rows of palms, allowing us to increase our direct POME application to the estates.

The group's inorganic fertiliser regime is designed by independent agronomy consultants, based on analysis of the nutrient content of systematically selected oil palm frond samples. In 2015 the quantity of inorganic fertiliser applied to crops during drought periods was deliberately reduced in consideration of the environmental conditions. Inorganic fertiliser is not applied during drought periods as moisture is required to mobilise the nutrients in the fertiliser and make them available to the palms. Furthermore, the defence mechanism employed by palms against the stress caused by prolonged drought is to become less active and reduce the uptake of nutrients. Consequently, fertiliser application during drought conditions is both costly and a waste of resources. In 2016, the quantity of inorganic fertilisers applied increased in order to take advantage of the wetter conditions and provide a boost to the nutrient supply base in order to improve FFB yields. Large quantities of inorganic fertiliser were applied to our newer, younger estates in order to give the young trees a boost to their growth and stimulate FFB production. CDM, KMS and PBJ were all included in the calculations for 2015 and 2016 but omitted for previous years (KMS was included for 2014), hence the seemingly large increases in fertiliser application for 2015 and 2016 shown in figures 8 and 9.

Figure 8: Inorganic fertilisers applied per planted hectare 2011-2016

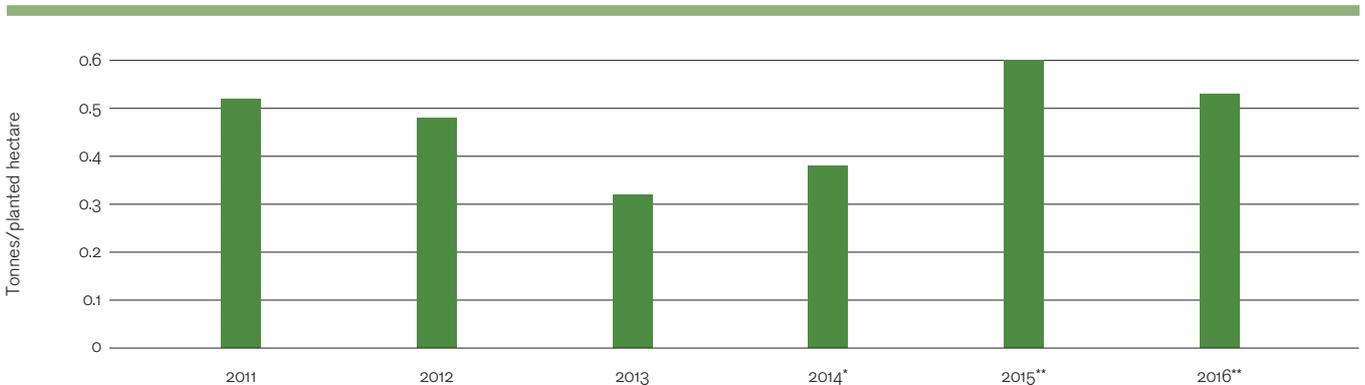
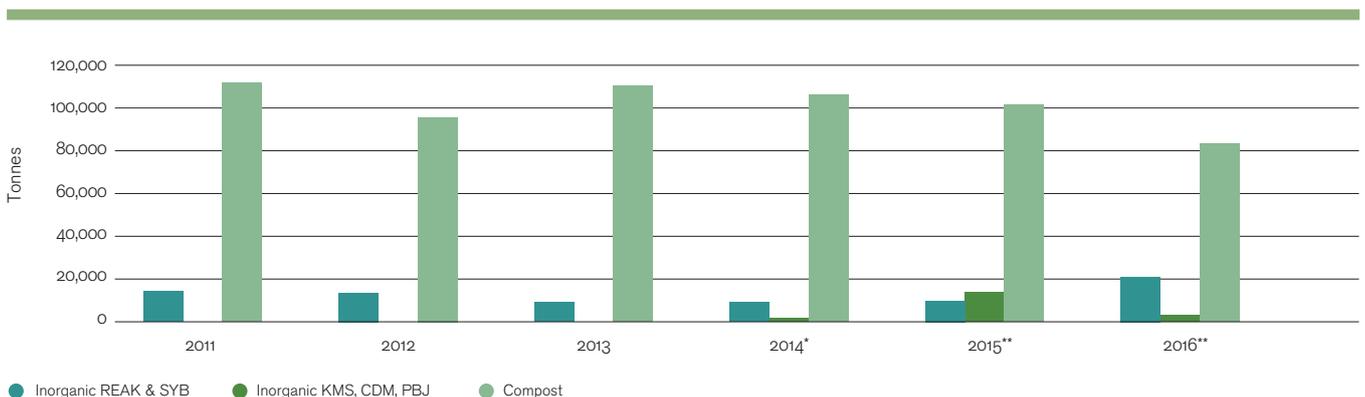


Figure 9: Total application of inorganic fertilisers and compost



* Note: fertiliser data is different to that given in 2014 report due to the inclusion of KMS in this report. ** Includes KMS, PBJ and CDM.



Fertiliser stores



A spray team prepares to administer herbicides

Herbicides and pesticides

The group has a well established integrated pest management system ("IPM") with the aim of minimising the use of chemical intervention to achieve optimum yields. This requires vigilance by our field teams and the use of biological control to limit pest outbreaks.

Our palms are under constant monitoring by our harvester, estates and conservation teams for signs of pest damage or excessive weed growth. A rapid response to the presence of pests or weeds is the most effective way to limit the quantity of chemical pesticides or herbicides required to control an outbreak which, if used improperly, can also affect non-target species and leach into waterways. We plant and maintain vegetation known to be favoured by natural predators of common oil palm pests in an effort to passively keep pest numbers low.

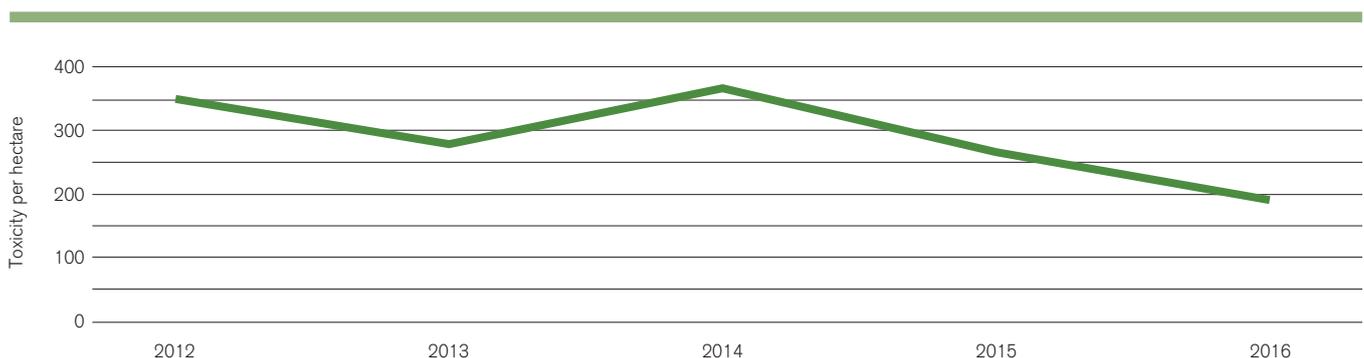
When an outbreak does occur and we need to intervene with the use of chemicals, we use the targeted application of insecticides directly into tree trunks or spray herbicides directly onto any offending weeds in order to minimise the potential negative side effects for the environment. Since May 2013 we have not used the herbicide Paraquat, replacing it with a less hazardous glufosinate ammonium-based herbicide. All our employees involved with the storage and handling of pesticides or herbicides are provided with regular training and safety equipment to protect their health and avoid unnecessary environmental impacts.

In March 2016, an outbreak of the leaf-eating caterpillar, *Setora nitens*, was detected which, at its peak, affected a total of 1,200 hectares of mature oil palm across five of our estates. Treatment to combat the outbreak began in April, insecticides designed to specifically target the caterpillars were systematically injected into the trunks of oil palms. The outbreak of caterpillars was brought under control by the end of September 2016, but insecticide application continued into the fourth quarter to prevent a resurgence.



The leaf-eating caterpillar, *Setora nitens*

Figure 10: Toxicity per hectare 2012-2016



Climate change

Our carbon footprint

As an agricultural industry with a large land footprint that inherently undergoes land use change, the oil palm industry has a responsibility to be proactive in reducing greenhouse gas (GHG) emissions and limiting the environmental and socio-economic consequences associated with climate change.

The group has used the PalmGHG tool (v. 3.0.1), developed by the RSPO, to calculate the carbon footprint of its oil palm operations in Indonesia for 2013 through to 2016 (see Box 5). The methodology has changed since the 2014 Sustainability Report, therefore the data presented is not directly comparable.

The group's GHG emissions have increased since 2013 (Figure 11), due to the inclusion of three new estates in the calculations since 2013. Each new estate contributed additional GHG emissions to the group's net total, associated with the land use change, agronomy and processing of FFB from the new estate. KMS was first included in 2014, but the most significant increase in GHG emissions occurred with the inclusion of both PBJ and CDM in 2015. New estates have lower FFB yields compared to mature estates, therefore an initial increase in our net GHG emissions per tonne of CPO and CPKO is to be expected following the inclusion of each new young estate, but this will decrease over time as the trees mature and FFB yields from these estates increase. Due to the large GHG emissions associated with land use change, the inclusion of PBJ and CDM also resulted in a significant increase in net GHG emissions per planted hectare of oil palm in 2015 compared to previous years. Net emissions per planted hectare are also anticipated to decrease in subsequent years following the initial inclusion of these estates, as demonstrated by the decrease from 2015 to 2016.

Figure 11: GHG emissions for the group 2013-2016

Mill	t CO ₂ eq / t CPO (inc. mill & 3rd party emissions)			
	2013	2014	2015	2016
POM	2.01	2.17	3.49	4.18
COM	0.92	1.07	2.81	2.19
SOM	1.78	1.85	4.36	3.87
Group	1.48	1.67	3.49	3.28

Mill	t CO ₂ eq / t CPKO			
	2013	2014	2015	2016
COM	2.56	3.37	6.62	6.97
SOM	3.29	3.33	7.53	7.53
Group	2.70	3.36	7.05	7.16

Mill	t CO ₂ eq / planted hectare (excluding 3rd party emissions)			
	2013	2014	2015	2016
POM	8.19	9.86	11.95	9.58
COM	3.83	3.86	9.91	5.17
SOM	6.10	7.94	17.43	12.58
Group	5.25	6.78	13.26	8.49

Box 5: The PalmGHG approach to calculating GHG emissions

As of 31 December 2016, all RSPO member palm oil producers have been required to publicly report their GHG emissions using the PalmGHG tool, so it is expected that this methodology will become industry best practice. The PalmGHG tool uses a lifecycle assessment approach, whereby all of the major sources of GHG emissions (carbon dioxide (CO₂), methane (CH₄) and nitrous oxide (N₂O)) linked to the cultivation, processing and transport of oil palm products are quantified and balanced against

the carbon sequestration and credits gained as a result of those processes. All direct and the majority of the indirect emissions associated with the group's oil palm operations in Indonesia are reflected. Aspects of the operations that are not included are the production of oil palm seedlings, the application of pesticides, fuel used for land clearing and the sequestration of carbon in oil palm products and by-products. The GHG emissions linked to these processes are not considered to be material.

Figure 12 shows each source of GHG emissions and carbon sequestration that contributed to our 2016 carbon footprint.

Figure 12: flow diagram of GHG sources and sinks

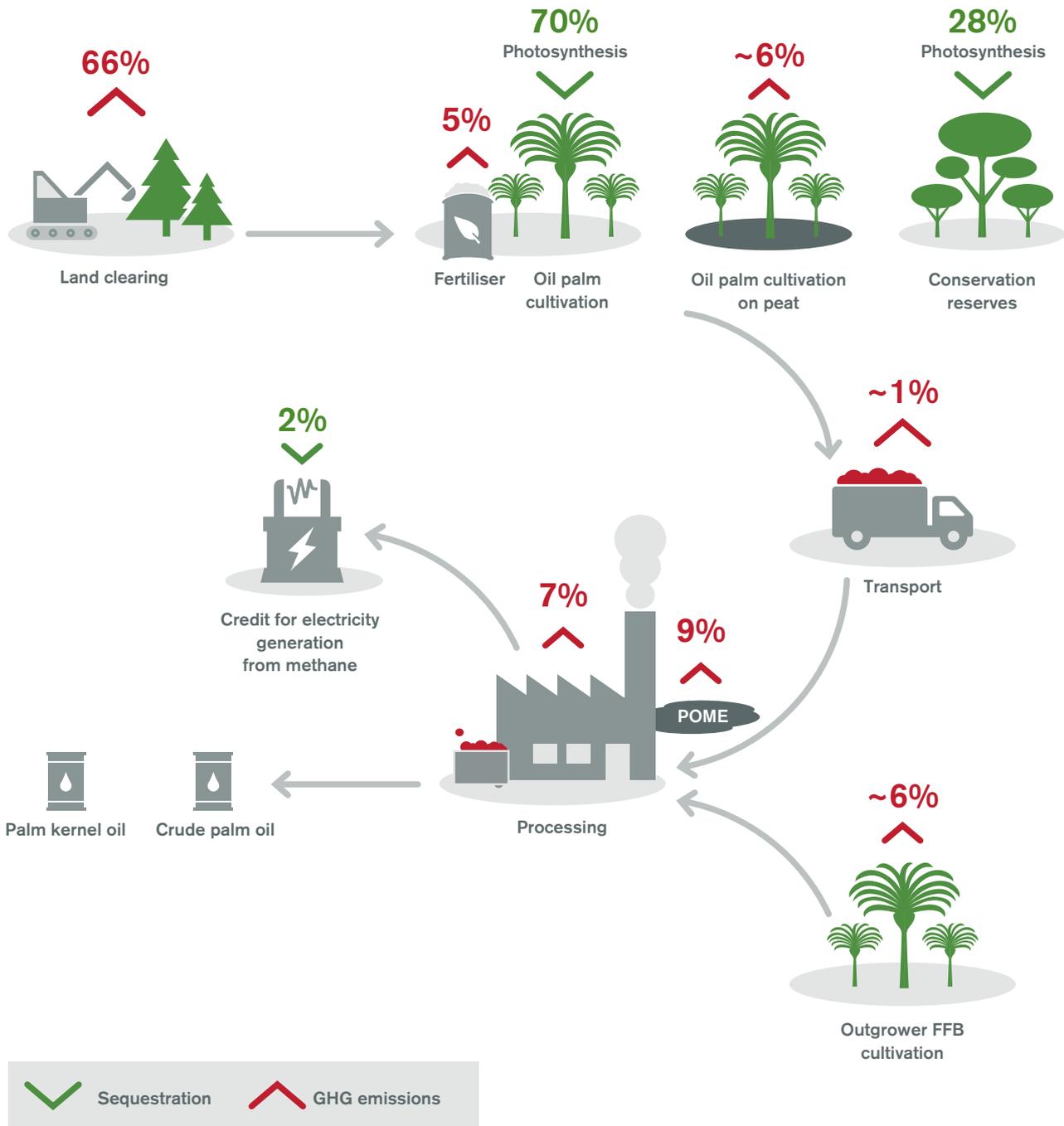


Figure 13: Group GHG emissions/sequestration per planted hectare 2013-2016

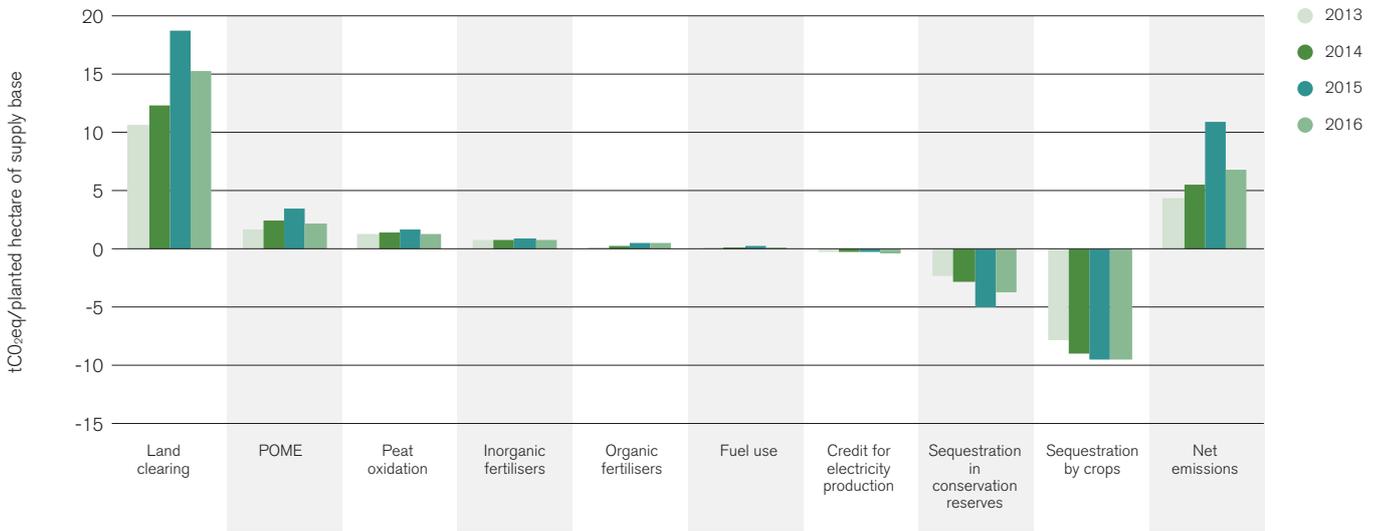


Figure 14: POM GHG emissions/sequestration per planted hectare 2013-2016

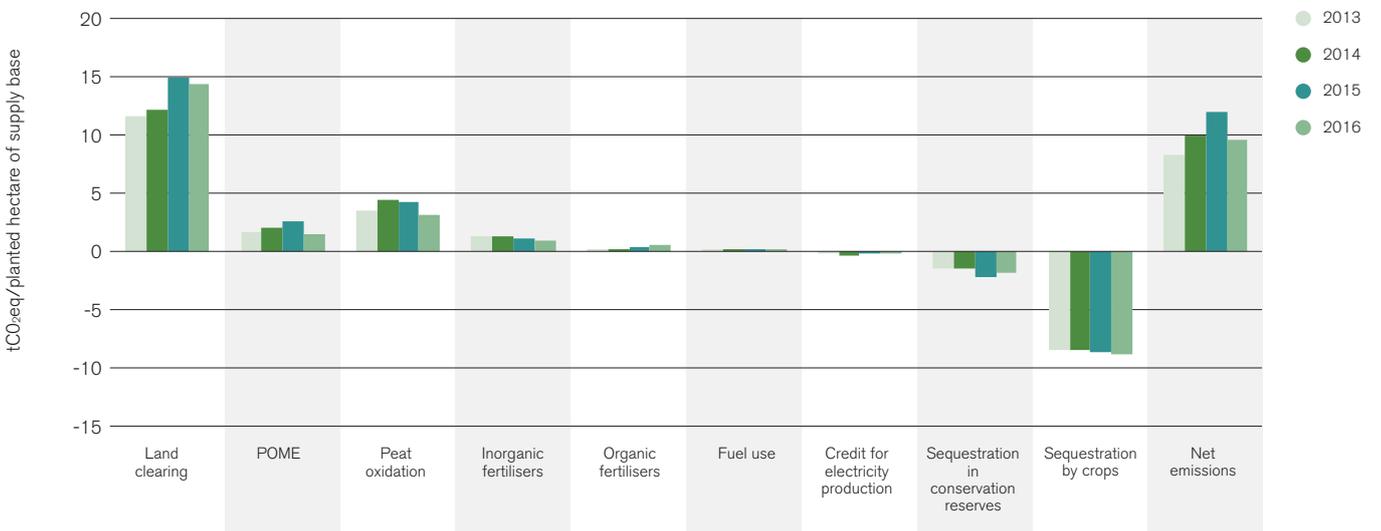


Figure 15: COM GHG emissions/sequestration per planted hectare 2013-2016

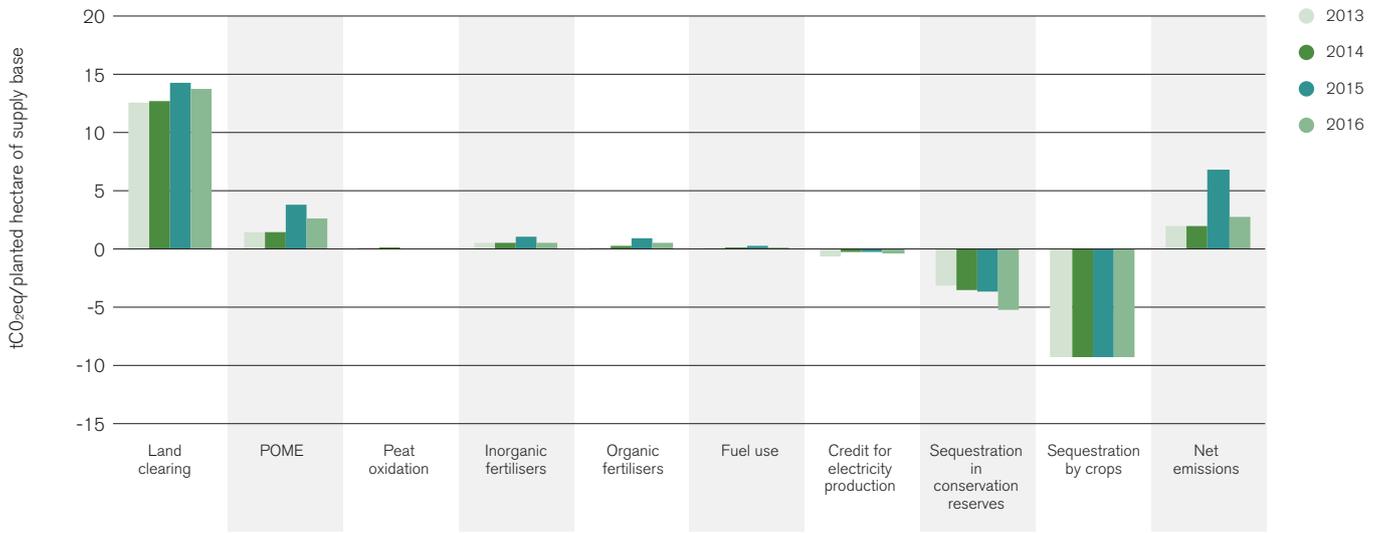
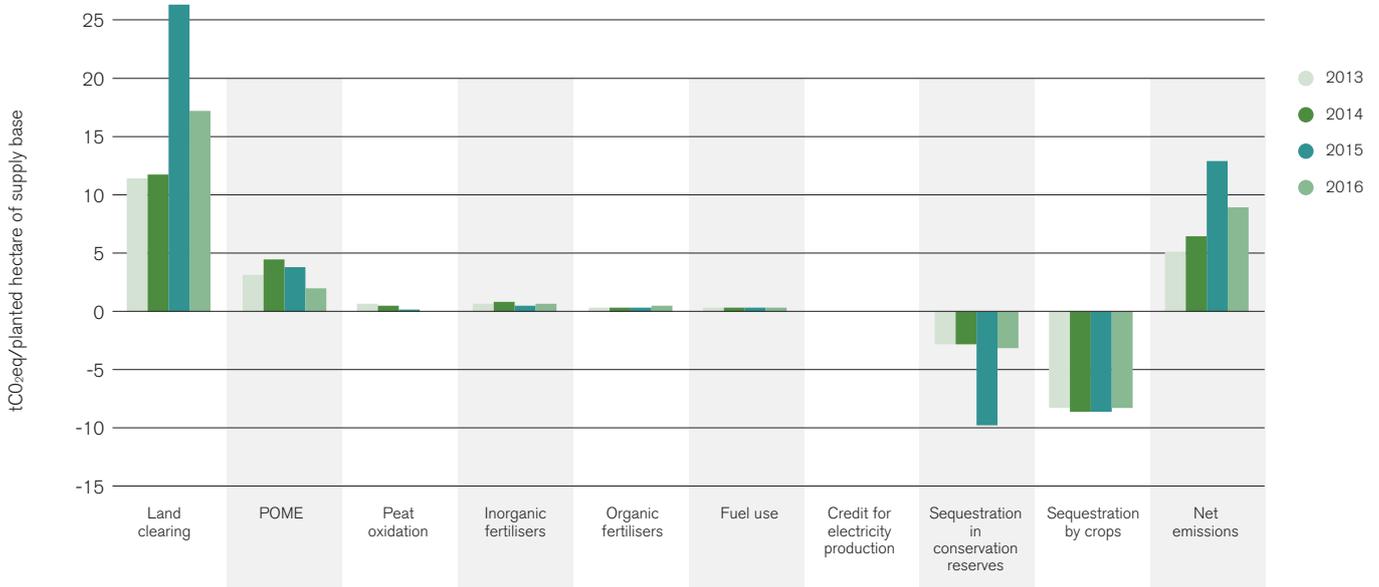


Figure 16: SOM GHG emissions/sequestration per planted hectare 2013-2016



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Land use change

The largest source of GHG emissions in our carbon footprint comes from land use change. The lifecycle methodology used by the PalmGHG tool amortises the land use change emissions for each concession over a 25 year period - the amount of time a palm is grown before being replanted. Consequently, a significant fixed annual emission from land use change is attributed to each plantation which, for our older plantations, cannot be reduced until replanting. We can minimise the contribution of land use change to our carbon footprint from our newly developing estates by conducting carbon stock assessments during the planning phase, in line with the RSPO's NPP, and avoiding development of oil palm on high carbon stock areas. Carbon sequestration by oil palm crops and forested conservation areas partially offsets the GHG emissions from land use change. Sequestration by crops consistently provides a greater carbon sink than conservation areas due to the greater size of planted areas versus conservation areas, but with each new estate included in the scope of our calculations, the associated conservation areas we maintain contribute to lowering our emissions.

POME and renewable energy

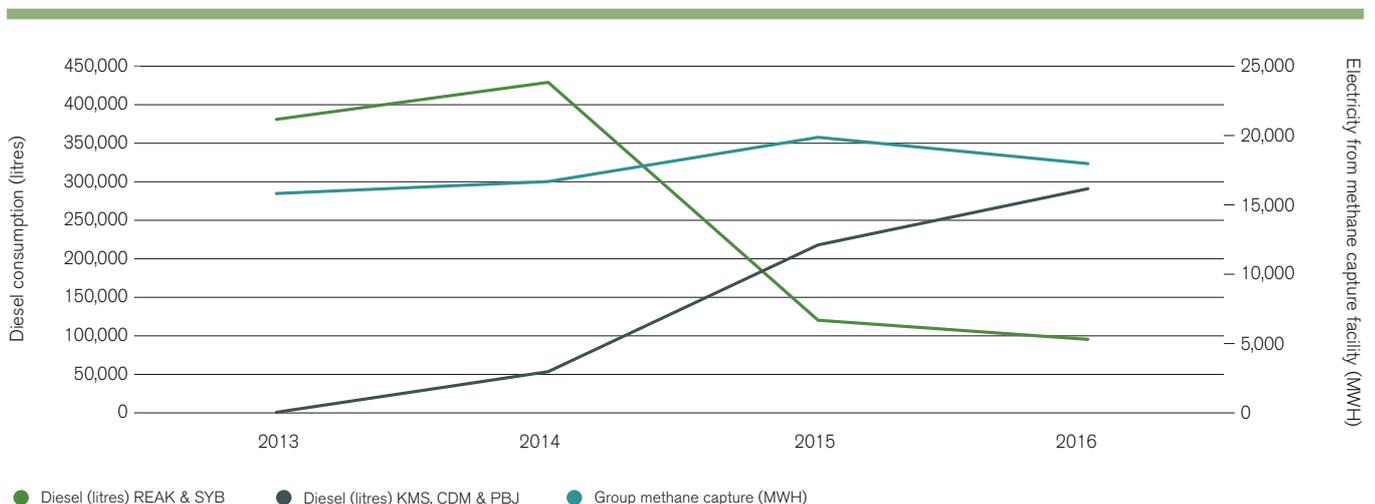
POME is the second largest contributor to our carbon footprint after land use change. The increase in GHG emissions from POME increased between 2013 and 2015 before decreasing in 2016. This pattern was the consequence of increasing POME production from 2013 to 2015 resulting from greater quantities of FFB processed in the mills during that period. Less FFB was processed in 2016 compared to 2015 but the reduction of GHG emissions associated with POME in 2016 is a combination of reduced POME production and a greater uptake of POME by our methane capture facilities.

In 2012 two methane capture facilities were commissioned at our two older mills (POM and COM) as part of our commitment to reduce our GHG emissions. Since commissioning, these methane capture facilities have succeeded in lowering our GHG emissions in three ways. First, because the methane capture facilities are closed systems, methane produced during the anaerobic digestion of POME is not released directly into the atmosphere, as it would be when POME is treated in traditional open ponds.

Second, the electricity generated from methane is used to power our mills, offices and worker housing. Before the installation of our power plants, generators fed by diesel were used to power our operations. The switch to a renewable energy source has ended our reliance on diesel generators at REAK and SYB, and therefore removed the GHG emissions associated with the combustion of some 256,000 litres of diesel on average per year since 2013 for electricity.

Finally, in April 2015 the group commenced supplying power to some of the villages in the local vicinity of our operations following completion of the electrical infrastructure by the Indonesian national electricity company, PLN (Perusahaan Listrik Negara). Our collaboration with PLN has successfully helped to reduce the GHG emissions of these local communities by reducing their reliance on diesel generators for electricity. Our own carbon footprint has been reduced as a result of supplying electricity to villages as the PalmGHG methodology awards carbon credits for the provision of renewable electricity to workers housing and local communities. In 2015, we provided some 3,421 megawatt hours ("MWh") to local communities. This increased to 8,182 MWh in 2016 as more villages were connected to the grid. Further information regarding the socio-economic benefits associated with our methane capture facilities can be found on page 58.

Figure 17: Renewable and non-renewable energy consumption by REAK and SYB



* NOTE electricity and diesel are for the groups operations only and do not include donations of diesel to villages or sales of electricity to PLN



The methane capture facility at COM

Peat

Our policy on responsible development reflects the RSPO's guidelines of not planting oil palm on peat soils. When an area of peat soil is developed for oil palm it is usually first necessary to lower the water table. When peat soils are exposed to the air, carbon contained within the peat is oxidised and released as carbon dioxide.

When developing our newer estates, soil surveys and high carbon stock assessments are conducted during the planning phase to prevent any development on peat. Unfortunately, during the development of our older estates (REAK and SYB) prior to joining the RSPO in 2007, 1,067 hectares of peat were planted with oil palm. Because we avoid any new planting on peat soils, any interannual fluctuations in the contribution of carbon released by peat soils to our carbon

footprint is entirely dependent on the level of the water table. Best practice guidelines state that water tables should be monitored using piezometers and maintained at between 40-60 cm to minimise GHG emissions without damaging palms. We have been actively monitoring and managing the water table in line with this guidance since 2013, but during extended periods of drought the water table can drop below the recommended level. This occurred in our Tepian and Sentekan estates in both 2015 and 2016, and as a result the contribution of GHG emissions from peat soils increased from 2014. This was not because of any new development on peat soils. The group endeavours to take all possible measures to reduce emissions from, and prevent further development on, peat soils but unfortunately it is sometimes the case that factors beyond our control, such as extended dry periods, will result in higher emissions from this source.

Section 6

Working in partnership with the community



A member of a local village performs at REA's birthday celebration

Community relations

We endeavour to ensure that our business contributes a significant and long-lasting improvement to the socio-economic status of the communities that live in the vicinity of our operations. Our core principle is to help communities grow and succeed by benefitting from our operations while being self-sufficient. The initiatives developed to achieve this include maximising employment opportunities for local people, supporting and improving local businesses, expanding smallholder schemes and investing in infrastructure projects that will catalyse further development.

Good relationships with the communities affected by our operations are essential for the success of our business. Developing and maintaining these relationships has not always been easy. With over 60,000 people inhabiting villages adjacent to our concessions and a population of over 12,800 employees and their families living in housing within our concessions, there are a wide variety of ethnicities, personalities and priorities that need to cohabit in harmony. To facilitate good relationships with our neighbours, our ComDev and REA Kon regularly engage with each of the local communities. Our village ambassadors hold formal and informal meetings with village and religious leaders, work with local farmers, fishermen and women's' groups and run education programmes in collaboration with the local schools. Our security teams work closely with local police and army personnel to uphold the law, safeguarding our operations, employees and local communities from criminal activities. Interacting with every faction of the surrounding population allows local people to learn more about how our business operates and provide feedback to help us overcome any negative impacts together. By creating opportunities for dialogue with these stakeholders, we reduce the frequency and severity of disagreements.



A monument standing in the village of Ritan, one of the villages local to our operations.

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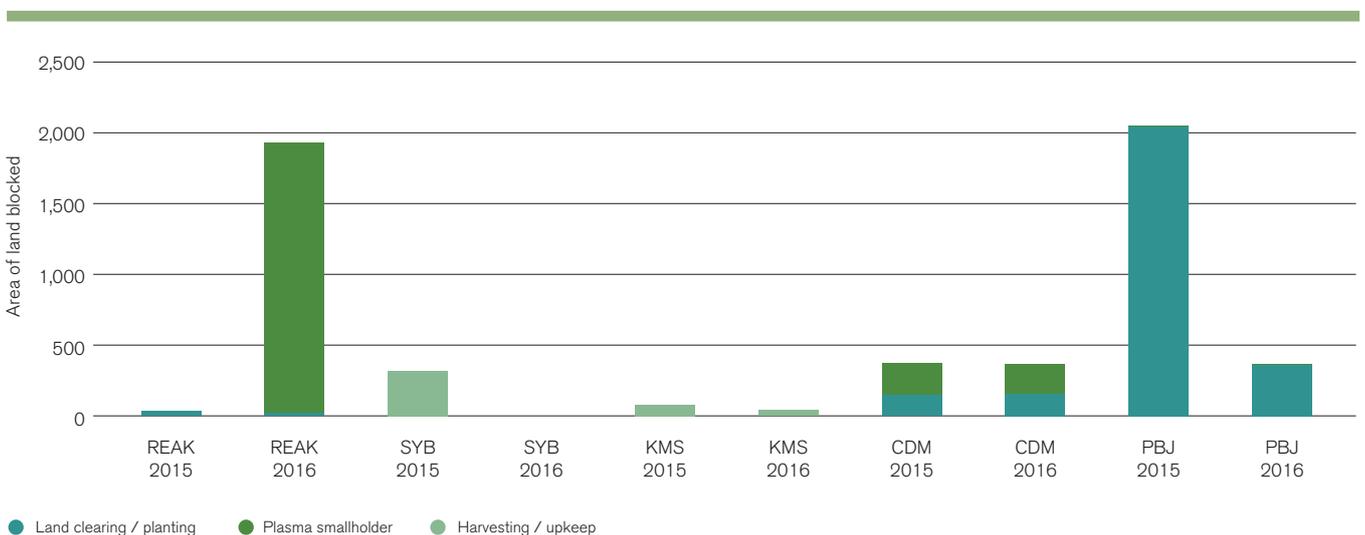


REA hosts a school trip for secondary school children from Senyuir village

Despite our efforts to prevent them, disputes still occasionally occur between local communities and our business, ranging from individual land use rights claims to protests blocking off portions of our concessions or mills. In 2016, 70 land rights claims were made against the group in respect of a total area of 1,572 hectares, of which only 45 claims were found to be legitimate following investigation by the DVA, a reduction from 105 claims over 1,814 hectares of land in 2015, of which 87 were legitimate. Most claims were successfully resolved by the end of each year, but in some cases the resolution of a claim can be delayed when a claim by one person or group stimulates further claims for compensation by others. 2,865

hectares of the group's land was blocked through protest by local communities in 2015, dropping to 2,347 hectares in 2016. None of the blockages in either year affected our mills, as they did in 2013, but the protests interrupted land clearance, planting, harvesting and the upkeep of palms. In 2015, the majority of the blocked land occurred at our newer estates and was related to land compensation claims. In 2016, 1,914 hectares of the blocked land included two of our plasma smallholder developments, resulting from a disagreement over the ownership of the plasma estate management company and the financial agreements in place.

Figure 18: Extent of land blocked by community protests on REA's plantations



Working in partnership with the community

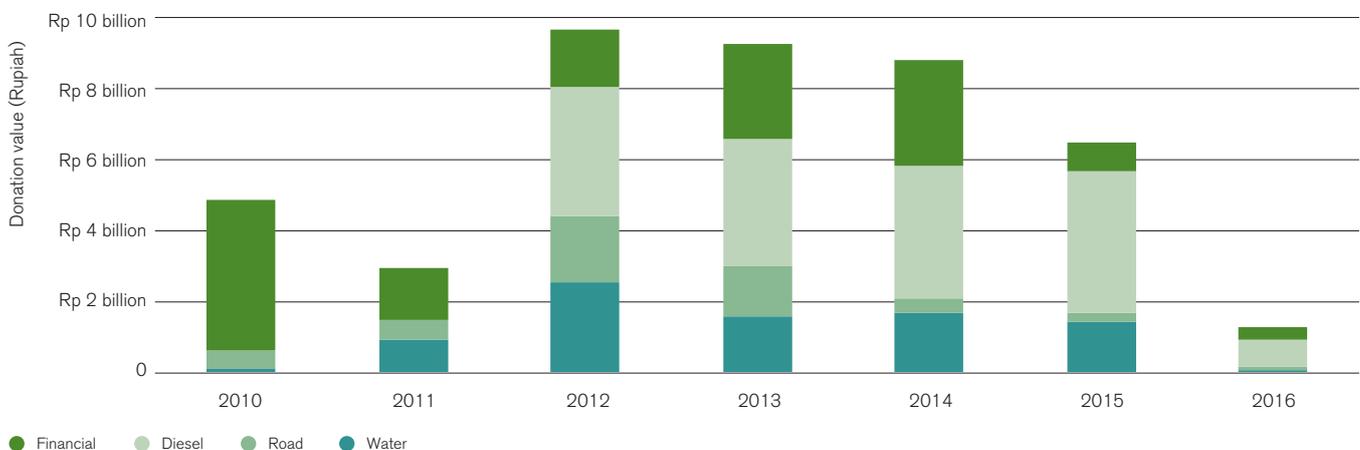
Community development

Our vision for community development is to become a leading partner in helping the community to become socio-economically self-reliant. Since 2013, our strategy for accomplishing this vision has included three key elements:

- investment in infrastructure projects
- provision of education and training to enable members of local communities to improve their own businesses or enter employment
- involvement and collaboration with local government and other neighbouring companies

Our investment in local villages decreased from previous years over 2015 and 2016 as a result of the company operating at a net loss during this time of expansion and low FFB yields. In 2012 our investment in local communities was at its peak, with donations totalling Rp 9.57 billion (US\$719,982). In 2016 investment amounted to Rp. 1.24 billion (US\$93,246). The nature of how we invest has changed over the years. In 2010 the our main investments were in the form of monetary donations. Subsequently, capital donations were reduced in favour of greater focus on providing tangible resources, including facilities for water treatment, the development and improvement of transport infrastructure and fuel for generators. The bulk of community investments made in 2015 were fuel donations for generators and water treatment facilities. In 2016, following the completion of the PLN electrical grid, diesel donations were greatly reduced as communities gained access to electricity generated by our methane capture facilities. Investment relating to water treatment was also lower than in 2015 as several villages had already received access to clean water in previous years. More information regarding our community investments in 2015 and 2016 are available in figure 20.

Figure 19: Investment in local villages 2010-2016



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Figure 20: Investment in local villages 2010-2016



Working in partnership

Smallholders

Smallholders have grown to become a vital part of our business. The relationships we have with the smallholders that supply our mills is inherently linked with our relationships with the local communities to which they belong. Over the years our partnership with smallholders has developed from purely commercial to much more involved with their operations - we started by simply purchasing FFB from independent smallholders but now operate schemes to help communities set up smallholder operations and work with independent smallholders to improve their yields and operate more sustainably. The group engages with smallholders in three ways: our PPMD, plasma schemes and purchasing FFB from independent smallholders. These are described in Box 6.



Smallholders delivering FFB to an REA mill

In 2016, our three mills processed 60,907 tonnes of FFB from PPMD smallholder schemes, 9,680 tonnes from our plasma schemes and 19,760 tonnes of FFB from independent smallholders. Together, smallholder sources accounted for 16 per cent of the total FFB processed in 2016 and resulted in local communities receiving a total revenue equivalent to US\$10.4 million. This is a significant source of income for people neighbouring our operation which, along with our community engagement programmes, has helped to foster support for our organisation. Our work with smallholders does not just benefit local communities, but also our own operation. We benefit from improved smallholder FFB yields and a reduction of the frequency and severity of disputes with local communities. Establishing and maintaining smallholder schemes can be challenging, but the benefits afforded to all stakeholders make our continued investment in these schemes worthwhile

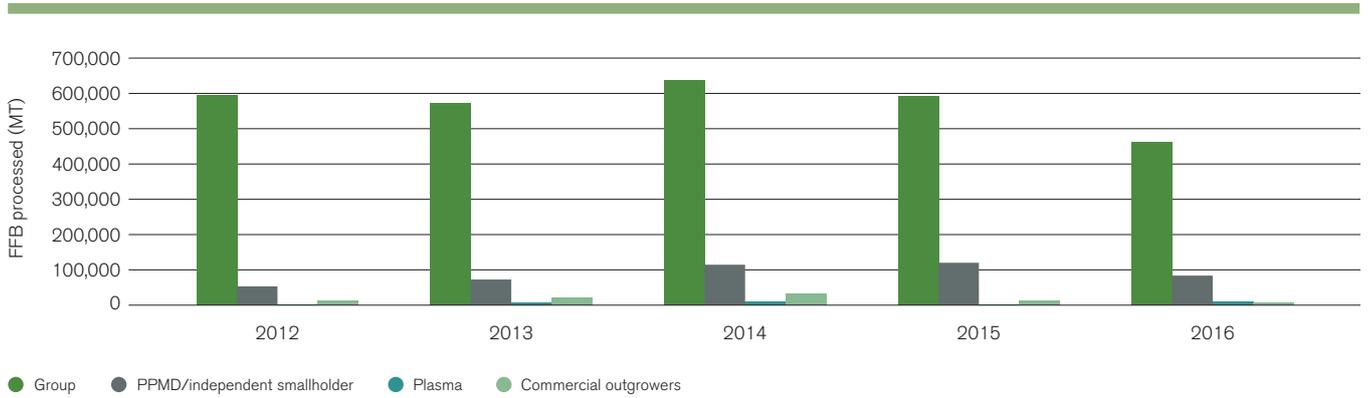
Box 6: Smallholder schemes

“Program Pemberdayaan Masyarakat Desa” (PPMD): This scheme was voluntarily established in 2000. Through this scheme, the group assists cooperatives of local people with access to land to cultivate oil palm by providing them with oil palm seedlings, fertilisers, herbicides and technical assistance. The community is responsible for managing the land and the cost of the inputs provided by REA are repaid by the members of these cooperatives, interest free, through deductions made when their FFB is sold to the group’s mills.

Plasma schemes: Plasma smallholder schemes are established as part of the group’s responsible development of new land for oil palm, in line with regulations introduced by the Indonesian government in 2007. Plasma schemes differ from PPMD in their financing and management. Plasma schemes established to date have been financed by loans to the cooperatives from the group and local development banks. The cooperatives themselves are not responsible for, or involved in, the management of cultivated plasma land, rather the group manages these areas in return for a pre-agreed management fee. Cooperatives therefore receive an income based on the value of FFB harvested minus loan repayments and management fees. Due to the more complex nature of the funding and management of plasma areas, their development into oil palm can take longer to organise than the development of PPMD or group-owned estates. It is critical that, before development begins, members of each cooperative fully understand how plasma schemes work, including the cost of cultivating oil palm, the terms of the financial agreements with the group or bankers to the schemes, and the predicted income over time to the members of each cooperative.

Working with independent smallholders: the group purchases FFB directly from independent smallholders. In so doing we are able to gradually improve their farming practices to boost yields and enhance the sustainability of their operations by providing training and setting conditions to which smallholders must adhere in order to sell us their FFB. For example, since 2015, FFB has only been accepted from smallholders who have participated in the group’s smallholder mapping process. The aim of this process is to create a comprehensive map and database of all smallholder land within the group’s supply base in order to make the group’s FFB supply chain fully traceable. Traceability of fruit purchased from smallholders to a specific farmer and plot of oil palm is critical to the group’s ability to improve the practices of its suppliers.

Figure 21: Sources of FFB processed in our mills



Members of the PPMD smallholder cooperative Karya Penoon

Development of plasma smallholder schemes

The group is committed to developing plasma and PPMD smallholder schemes equivalent to 20 per cent of our own planted area. We have currently developed 4,068 hectares as plasma smallholder schemes and 1,531 hectares as PPMD, the equivalent of 13 per cent of our planted land bank, but are in the process of developing more land as plasma to meet our goal. Figure 22 shows the progress of the 19 intended plasma schemes. The oldest plasma schemes, two associated with REAK and three with SYB, were planted between 2009 and 2011 and currently supply FFB to our mills. Four new plasma schemes associated with REAK are currently in the phase of identifying land use rights and determining who is

entitled to receive the benefits of each plasma scheme. This phase must be completed before any management agreement between REA and the eligible communities can be reached and the RSPO's NPP commenced. At our newer concessions, local communities have been informed of our plans to develop plasma schemes, but only at PBJ have the eligible communities signed management agreements. KMS and PBJ schemes have also completed the RSPO's NPP and begun planting oil palm, but plasma schemes at CDM are less progressed, as land use rights and community entitlement are still being identified.

Figure 22: Progress to date in establishing REA's plasma schemes

Company	REAK						SYB			KMS		PBJ		CDM					
	1	2	3	4	5	6	1	2	3	1	2	1	2	1	2	3	4	5	6
Cooperative																			
Socialise plans to develop plasma	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Identify the people entitled to receive plasma	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Inventorise the land to identify overlapping land claims/village boundaries	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Finalise the list of people from each village entitled to plasma	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Legally establish cooperative	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Socialise MoU/management agreement with REA	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Sign MoU/management agreement with REA	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Obtain bank loan	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
RSPO New Plantings Procedure	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
Land acquisition, land compensation & obtaining relevant licenses/permissions	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
Land clearing & planting oil palm	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●

● Completed before 2015
 ● Completed during 2015/2016
 ● In progress during 2015/2016
 ● Not started
 ○ Does not apply

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Figure 23: Community membership in plasma smallholder schemes

Group association	Plasma cooperative	Planted area (hectares)	Number of members	Villages included in cooperative
REAK 1	Kahad Bersatu	1354	394	Pulau Pinang, Perdana, Bukit Layang
REAK 2	Etam Bersatu	560	172	Kelekat
REAK 3	Plasma Etam Sejahtera	-	-	Kembang Janggut
REAK 4	Tunas Harapan	-	-	Long Beleh Haloq
REAK 5	Sukma Raya Bestari	-	-	Long Beleh Modang
REAK 6	TBC	-	-	Muai
Sub-total REAK		1914	566	
SYB 1	Bangun Sari	462	252	Gunung Sari
SYB 2	Pekalai Murip	131	154	Buluq Sen
SYB 3	Anugrah Sejahtera	256	787	Ritan Baru, Tukung Ritan
Sub-total SYB		849	1193	
KMS 1	Senyuir Indah	750	TBC*	Senyuir Indah
KMS 2	Wira Benua	-	-	Kelinjau Ilir
Sub-total KMS		750	TBC*	
PBJ 1	Sawit Jaya	401	490	Muara Kedang
PBJ 2	Sawit Gusik Mandiri Sejahtera	154	TBC*	Muara Gusik
Sub-total PBJ		555	TBC*	
CDM 1	Alam Daya Berseri Sejahtera	-	-	Sumber Sari, Tanah Abang, Sumber Agung
CDM 2	Marga Jaya	-	-	Sumber Sari
CDM 3	Surya Tanah Abang	-	-	Tanah Abang
CDM 4	Sumber Harum	-	-	Sumber Agung
CDM 5	Balai Indah Mandiri	-	-	Batu Balai
CDM 6	Rakat Kelinjau Benua	-	-	Kelinjau Ulu
Sub-total CDM		TBC*	TBC*	
Group plasma total		4068	2,249	
Group PPMD total		1,531	720	
Group independent total		8,484	2,608	
Total		14,083	5,577	

* Membership is still being finalised

Improving smallholders' practices

We are committed to improving the farming practices of all smallholders that supply FFB to our mills, with the long term goal of achieving full RSPO certification for our PPMD, plasma and independent smallholders. By improving the sustainability of smallholder practices, each cooperative can expect to improve their yields, the quality of their fruit and ultimately receive economic benefits through higher premiums for their FFB.

We are able to achieve RSPO certification for our plasma scheme smallholders, as in such cases we are responsible for the development and management of these units and are therefore able to comply with the RSPO standard. Due to the number of non-compliances found during internal audits, however, we elected not to include our PPMD scheme smallholders in our 2016 RSPO recertification audit. Guiding our PPMD and independent smallholders towards RSPO certification remains challenging. We purchase FFB from 27 PPMD and independent smallholder cooperatives, consisting of approximately 2,380 farmers with smallholdings of approximately 10,015 hectares distributed over a large area. To help us in this task, we collaborated with international development NGO SNV in 2015. SNV conducted a pilot training program for REA's smallholder team plus the management teams of five cooperatives on the theory and techniques required to provide effective training in best agricultural practices to smallholder cooperatives.

To further encourage our independent smallholders to adopt more sustainable practices and bring them more in line with the RSPO standard, we are in the process of updating our business agreement with smallholders to include policies of not clearing land by burning and not planting on peat soils.

Given the success of the pilot program, in 2016 we submitted a proposal to the RSPO's Smallholder Support Fund ("RSSF"), applying for funding to continue working with SNV. The proposal was for SNV to continue with their "train the trainer" and ultimately certify 380 independent smallholders to the RSPO standard. Unfortunately, the application was unsuccessful and the group is now reviewing alternative strategies for proceeding with our commitment to achieve RSPO certification for our smallholders. The lack of success of our funding proposal means that we have had to reconsider the timeframe in which we are likely to achieve this goal and have had to postpone our anticipated completion date to 2025.



Independent smallholders receive training to improve their farming practices

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Traceability

Over the last few years, NGOs and certification schemes involved in improving the sustainability of palm oil have sought to enhance the traceability of whole supply chains. Supply chain traceability is important for the industry and end users of palm oil products as it increases the visibility of supply chains to buyers and identifies illegal or unsustainable practices within supply chains. For our own supply base, tracing all fruit purchased from smallholders back to a specific plot of land, in conjunction with the fruit grading system at our mills, allows us to monitor the effectiveness and progress of our efforts to improve the sustainable practices of our PPMD and independent smallholders. We have successfully completed the process of mapping and gathering information relating to smallholder plantings associated with our REAK mills, resulting in a fully traceable FFB supply chain to our two REAK mills. The mapping process for smallholders supplying FFB to our SYB mill is ongoing and we hope to complete this by 2018.



FFB delivered by smallholders is graded on quality



PPMD smallholders receiving training about improving the quality of their FFB

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Our workforce

There were significant changes to the size of our workforce throughout 2015 and 2016. At the end of 2014, the group's workforce numbered 9,790. Over the course of 2015 this number was reduced to 7,028. This 28 per cent reduction in our workforce was largely due to the curtailment of our reliance on casual workers in an effort to improve productivity and to achieve cost savings and efficiencies during 2015 when crop levels declined. In 2016, our workforce grew once again to 8,368, with the majority of the increase occurring in the last quarter. During this quarter more casual workers were required to help with harvesting as FFB yields improved.

We believe that minimising the turnover of permanent employees at each level of the company helps to promote a more efficient and productive workforce. Employee turnover remained reasonably high in 2015, particularly for workers, due to continued restructuring and cost-saving measures during periods of low FFB production. In 2016, management turnover remained relatively high as management staff ended their contracts with REA prior to the Jakarta and Samarinda offices closing and merging into a single new head office in Balikpapan.

Figure 24: **Employee turnover, 2010 - 2016**

	2010		2011		2012		2013		2014		2015		2016	
	Resignations	Turnover												
Management	5	8%	2	3%	27	51%	6	10%	15	25%	15	24%	12	20%
Other permanent staff	21	9%	37	16%	33	14%	17	7%	35	13%	34	12%	24	8%
Workers	928	20%	1265	29%	1036	23%	872	17%	914	16%	1118	20%	794	15%
Total	954	19%	1304	28%	1096	23%	895	17%	964	16%	1167	19%	830	15%



Employee benefits and facilities

We understand that the remote location in which we operate does not necessarily afford the same opportunities for life outside of work that may be available in less remote locations. In addition to an employee's salary, we therefore provide facilities to reduce the impact of remote living on our employees and their families.



Employee housing

Permanent employees and their families who wish to live on the plantation are eligible for housing, all equipped with electricity and potable water. In 2015, 90 new houses were completed: 20 at Satria oil mill, 20 in Satria estate and 50 in KMS. In 2016, 16 new houses were constructed for workers at the group's KMS and Satria estates. This number was originally intended to be higher, but the contractor employed to build houses at Satria estate abandoned the project without warning, halting housing development. A further 26 new houses are planned for Satria in 2017.



The 2016 winner of "Best House"

As at the end of May 2017, there were 5,672 permanent employees living in housing provided by the company. Including family members, the total population of residents across our housing developments is 12,839. Understandably, with a population this size, maintaining the housing facilities can be challenging. To encourage greater responsibility for the upkeep of housing and worker villages as a whole, we initiated the "Best House" and "Best Estate Village" competitions in 2014. These competitions continued through 2015 and 2016 with increasingly enthusiastic participation, and have resulted in significant improvements in the appearance, cleanliness and general condition of estate villages. In 2016, the best house prize was awarded to an employee in Cakra estate and Berkat received the best estate village prize.



Primary school children at a school in REA's KMS concession

Each estate village also contains amenities to allow residents access to healthcare, education, religious and recreational facilities. Clinics, churches, mosques and a variety of sports facilities are provided to increase the wellbeing of resident families. Quality education is rare in remote locations, and is often a determining factor in how long an employee and their family choose to stay. To address this issue, in 2008 the group established a foundation to manage a network of schools across the estates. Since then the school network has grown, and the foundation now proudly manages 28 schools, including 11 pre-schools, 16 primary schools and one secondary school. As of the end 2016, 516 pre-school children, 1,624 primary school and 170 secondary school students, were enrolled in our schools.



A Catholic church in one of our company villages



A Muslim study group for employees' children

Motivating our employees

Competitive salaries and material benefits help us acquire a permanent workforce, but to get the best performance out of our employees we need to provide motivation. We do this through a bonus scheme that rewards employees at every level based on their performance and through opportunities for training to increase the upward mobility in the company for talented employees.

Performance from assistant to director level is evaluated annually in relation to a pre-agreed set of quantitative and objective KPIs. KPIs for each employee are split between corporate objectives, departmental goals and personal performance. The reward system is under constant review in an effort to find the most effective strategy for improving productivity. In 2016 we implemented a revised bonus system for harvesters, whereby annual bonuses are calculated based on the number of days per year in which the quantity of FFB harvested by an individual exceeds a preset minimum level. The more days a harvester exceeds the minimum level, the greater their bonus. A quarterly bonus is also awarded to the two most productive harvesters at each estate as an added incentive. This system replaced the previous scheme where bonuses were calculated based on attendance. Since the introduction of the new bonus system there has been a marked improvement in harvester productivity.

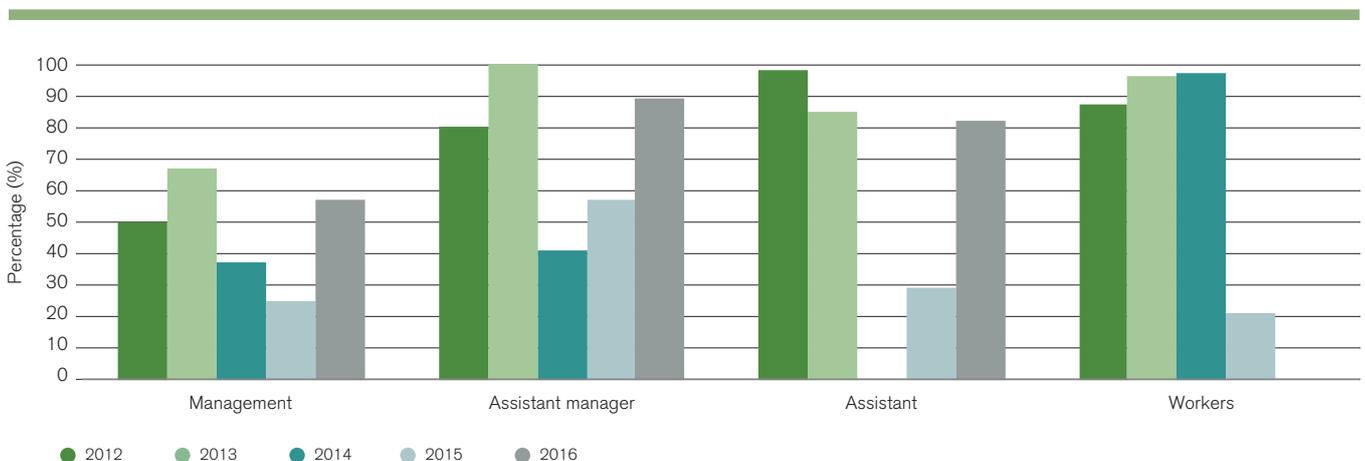
Filling management positions through internal promotions improves the efficiency of our operations as well as motivating our employees to be more productive in order to achieve positions of greater responsibility and salary. We facilitate the upward mobility of promising employees through our long established cadet training programme. The cadet programme is run from the group's central training school, and provides participants with 12 months of theoretical and practical training in all aspects of plantation management. Cadets who successfully complete the training are appointed as assistants on the group's estates, in the mills and various other departments. Over the last ten years, 259 cadets have participated in this programme and almost 70 per cent are still employed by the group. 33 people enrolled in the 2015/2016 program, of which 25 successfully graduated and progressed to positions at the group's mills, the established and developing estates, the plasma projects and the conservation department. The group's training manager has also developed an annual training programme for employees not enrolled in the cadet programme, based on input from every department, and consisting of in-house training, external training and participation in conferences.

Figure 25: Participants of REA's cadet program 2011-2016

	2011	2013	2014	2015	2016
Existing employees	10	19	10	4	0
Fresh graduates	26	13	36	29	10
Total	36	32	46	33	10

* Cadet programme did not run in 2012

Figure 26: Percentage of appointments made through internal promotion of existing permanent employees



Respecting workers' rights

Our human rights policy

- No child labour
- No slavery or trafficked labour
- Equal opportunities for all: no harassment or discrimination
- Freedom of association to form unions and bargain collectively
- Protection of reproductive rights
- Fair pay and working conditions
- Anonymity for complaints and whistleblowers
- No development of land without the FPIC of land use rights holders. If FPIC is granted, fair compensation will be paid to those with legitimate rights to the land.
- No violence or use of military force by our security personnel: all conflicts or disputes resolved through an open, transparent and consultative process.

We respect the human rights of every person employed or affected by our operations and work hard to protect them. Our human rights policy has been developed and updated as required to adhere to the core principals of the International Labour Organisation's Fundamental Principles and Rights at Work, the UK Modern Slavery Act 2015, Article 4 of the Human Rights Convention and Indonesian labour laws. To ensure each employee is aware of their rights, we display our human rights policy at every site, and have established committees to stimulate dialogue between workers and management in order to highlight any issues.

Decent pay and conditions

All male and female, full time or casual employees receive a wage equivalent to the minimum wage of the region of Indonesia in which they work, regardless of their performance. Bonuses based on good performance are paid in addition to standard wages at every level of employment (see "Motivating our employees", page 68). The minimum wage is set by the local government of each region and has increased by 25 per cent

from 2014 to 2017. Permanent employees and their families are also entitled to housing, healthcare and primary education, all of which materially increase their level of remuneration.

Casual workers made up between 21 - 34 per cent of the workforce each month across 2015 and 2016. Casual workers tend to be people from local villages wishing to supplement their original income from other activities or family members of permanent employees. We always ensure that casual workers are employed in line with Indonesian labour regulations and our own human rights and health and safety policies. We aim to reduce our reliance on casual workers in order to develop a more permanent workforce, especially as our newer estates become more developed. This will result in a more stable and productive workforce which benefits from greater job security and material benefits in kind.

Figure 27: Minimum monthly wage for the districts where REA's plantations are located 2012-2016

		2012	2013	2014	2015	2016	2017
Kutai Kartanegara	Rupiah	1,254,712	1,908,146	2,070,530	2,295,804	2,305,000	2,495,163
	US\$	94	143	156	173	173	188
Kutai Barat	Rupiah	1,268,500	1,769,557	1,920,000	2,030,016	2,287,926	2,487,500
	US\$	95	133	144	153	172	187
Kutai Timur	Rupiah	1,280,000	1,765,000	1,956,535	2,117,500	2,276,312	2,464,108
	US\$	96	133	147	159	171	185

Exchange rate used: US\$1 = Rp 13,306 (04/06/2017). US\$ amounts are rounded to the nearest \$1.

No child labour

We will not employ any individual under the age of 18. We verify a potential employee's age prior to accepting them onto the workforce by checking identity cards, school certificates and family registration information. We also prohibit employees from allowing their children to accompany them to work and, in particular, from having them help collect loose fruit, although there are occasions when harvesters are brought lunch by their children. There are potential health and safety risks associated with children in the workplace, whatever the reason for their presence, and all employees are reminded of this on a regular basis. Field supervisors are in place to assess workplace risks and are required to be vigilant on this issue.

Freedom of association and collective bargaining

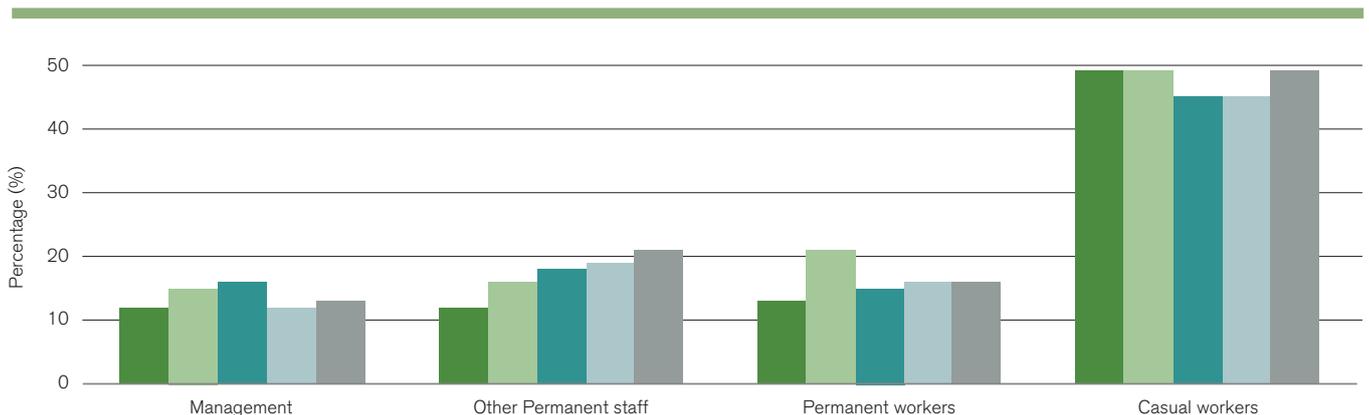
We respect the right of our employees and contract workers to form or join trade unions and bargain collectively, in accordance with national and international regulations. There are currently three trade unions within our workforce, the oldest of which was formed for the workers of POM in September 2012. Two newer unions were formed in June 2016 for employees at REAK and, separately, Cakra and Sentekan estates. The activity undertaken by these unions is the mediation between employee and management if management decisions are considered outside of normal procedure.

Equal opportunities

We take a zero-tolerance approach to discrimination in the workplace based on age, disability, ethnicity, gender, marital status, political opinion, race, religion or sexual orientation. We actively promote diversity and equality. At the end of 2016, 37 ethnicities and 5 religions were represented in our workforce.

We are conscious that the oil palm industry has been traditionally male-dominated and seek to improve the gender balance of our employees at each level of the company. To this end, and in line with the requirements of the RSPO, we have established gender committees to provide a forum for gender-related issues to be aired so that challenges and improvements can be discussed with management. As at 31 December 2016, women accounted for 28 per cent of the total workforce, increasing from 22 per cent in 2015. In 2016, 17 per cent of the management team and director positions were occupied by women.

Figure 28: Percentage of women in our workforce



No slavery

The group has a zero-tolerance policy towards forced labour and slavery. Our policy follows the provisions of the UK Modern Slavery Act 2015 and Article 4 of the Human Rights Convention. To ensure that no person is held in slavery, exploited or forced to perform compulsory labour, we manage our workforce according to the following criteria:

- All full time employees, casual workers and third party contractors are provided with clear terms of engagement, including a defined notice period for termination and the group's policy with respect to slavery or trafficked labour.
- The group never secures services from individuals through the use of force, threats or deception.
- No individuals engaged with the group, nor their families, are required to deposit passports, identity cards, insurance cards or money in advance of, or during, their contracted period of engagement with the group.
- Family members of employees, casual workers or third party contractors are not exploited, forced to perform labour or provide services. If a family member is willing, they may apply for paid work under a pre-agreed contract with clear terms of engagement.
- The group does not tolerate human trafficking and will not recruit, facilitate the transport of, nor harbour any persons with the intention of exploiting those persons.



A mural on a school wall depicting unity among religions

Occupational health and safety

Our health and safety policy

- Comply with all domestic and international laws and regulations
- Integrate occupational health and safety considerations into all our operations
- Achieve zero work-related fatalities and continuously reduce lost time accident rates
- Investigate, record and take corrective action for all accidents and incidents
- Provide health and safety training to all employees and contractors to promote safe working practices
- Prohibit drugs and alcohol from the workplace
- Provide personal protective equipment for all employees and contractors
- Develop and maintain effective emergency preparedness and response procedures

Health and safety is a high priority for us. Aspects of our operations can be potentially dangerous and it is every employee's right to have a safe working environment. To ensure that we are able to provide this and that our employees are capable of determining and reducing the risks associated with their work, we have been implementing an Occupational Health and Safety (OHS) management system aligned with the internationally recognised OHSAS 18001 standard.

The major focus of the group's safety programme throughout 2015 and 2016 has been the development and integration of safety considerations into the working behaviour of every employee. This has proved to be the most challenging aspect of implementing our OHS system. Regular training sessions alongside monthly inspections of the group's mills, estates and biogas facilities are conducted to ingrain the importance of safe working practices into all employees and contractors.

Monthly inspections of the group's mills, estates and biogas facilities are undertaken to ensure planned health and safety measures are implemented in order to meet the criteria for OHSAS 18001 certification. Routine training sessions for permanent employees and safety inductions for third party contractors and casual workers include: the appropriate use of protective equipment, first aid, fire safety, risk management for high risk tasks (working at height, in confined spaces or with chemicals) and a safety accountability system for all permanent staff.

Following the widespread fires in Kalimantan in 2015, additional emergency response training courses were conducted for fires, which also included training for responding to chemical spills, explosions and riots. Roads in the region of the group's operations can be hazardous, particularly after heavy rain, therefore drivers of all vehicles are required to pass a company-set driving test and motorcycle safety training is provided for employees and their families.

Despite regular and routine training, it takes time for health and safety practices to become naturalised within a workforce. Before undertaking external audits to obtain OHSAS 18001 certification, the group's management must be confident that the OHSAS 18001 standard will be upheld on a daily basis throughout the groups' operations. In 2016 a new head of health and safety joined the company and reviewed the health and safety standards across the group's operations. Following discussions with the new head of department, it has been decided that we need to postpone OHSAS 18001 audits and delay our target for obtaining OHSAS 18001 certification until the end of 2017.



A visible reminder for mill employees to wear protective equipment

Accidents and fatalities

The group has made every effort to minimise the occurrence and severity of accidents through employee training and capital investment in our operational infrastructure and protective equipment. Unfortunately, accidents still occur within the boundaries of our operations.

We use lost time accident rates ("LTA"), the number of incidents resulting in at least one day off work, and accident severity rates, the average number of work days lost per LTA, as indicators of the effectiveness of our OHS management system. In 2015, there were a total of 275 accidents resulting in time off work across the group's operations. This increased to 690 in 2016. In both years, the significant majority of incidents occurred at REAK estates (Figure 29). Despite the increase in lost time accidents, the group's total accident severity rate has decreased (Figure 30).

The sharp increase in accidents from 2015 to 2016 demonstrates that the health and safety training currently given our employees has failed to create a culture of health and safety amongst the workforce. Accident reports show that employees are not always using protective equipment when necessary, taking appropriate measures to reduce risks when conducting higher-risk tasks or regularly maintaining safety measures in place at work sites. Part of the problem is a lack of enforcement of safety protocols by team leaders or managers, with no sanctions being applied to employees who do not work safely. To highlight the necessity and increase the responsibility of on-the-ground staff to enforce safe working practices, the group is incorporating health and safety targets into the KPI's for each level of employee.

Figure 29: Lost time accident rates (lost time accidents per 200,000 working hours)

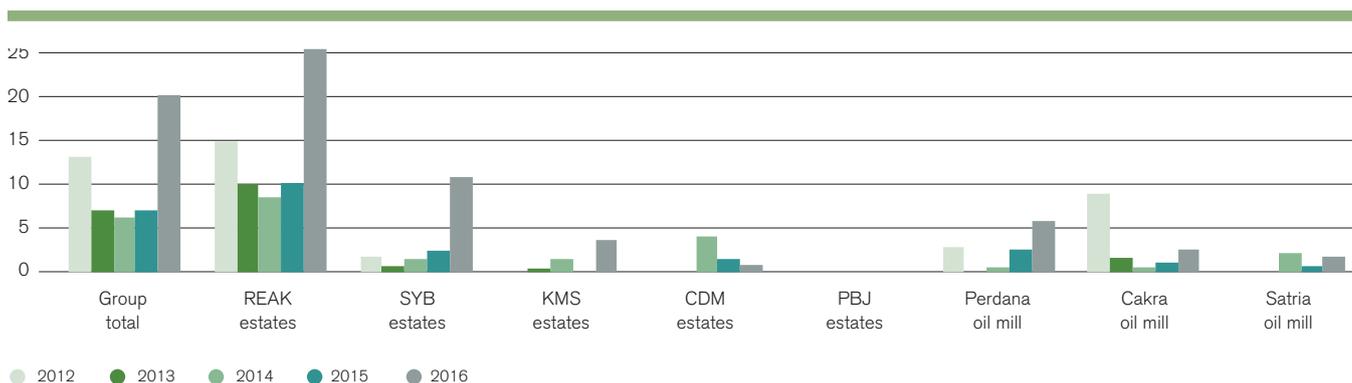
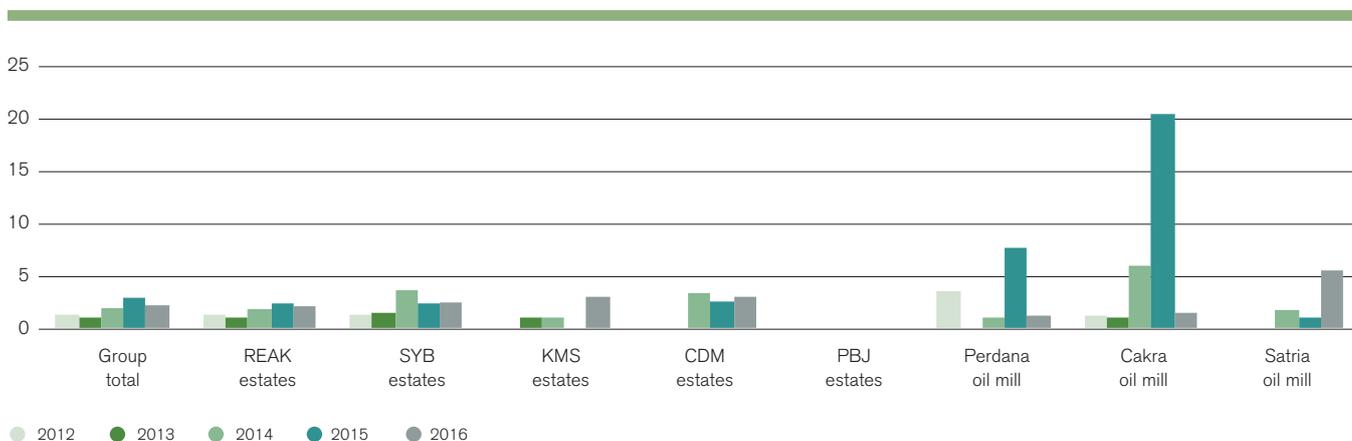


Figure 30: Accident severity rate (average lost days per accident)



* in May 2015 there were only two accidents at COM, but one resulted in 40 days off work, leading to this high figure.

It is with deep regret that we report that from January 2015 to May 2017, five employees and four relatives of employees were involved in fatal accidents within or next to our concessions. The details of these accidents are given in figure 31. Four of these fatalities were considered work-related, involving our employees and occurring during working hours within the boundaries of our operations. Whether an accident is considered work-related or not, we treat any fatality within our premises extremely seriously and respond in the same way. To try and prevent serious incidents from recurring, in 2015 the group introduced a more rigorous incident investigation and reporting procedure to ensure that the cause of any incident is properly identified and the senior management operations teams understand the remedial action required.

Traffic safety

Since our first concession was planted over twenty years ago, we have developed an extensive network of roads within and around our plantations. As the network has grown, the frequency of road accidents has increased. This is largely due to a higher volume of road users as a result of the greater wealth acquired by local populations, meaning more people now have their own vehicles and no longer travel by river. We do everything we can to maintain the quality of the roads within our concessions, but extended periods of wet weather can degrade roads and make them more dangerous faster than we are able to repair them. In an effort to prevent accidents we operate a company driving licence scheme for all types of vehicle, including personal motorbikes. This scheme first requires an employee to obtain an official police driving licence for the relevant type of vehicle, then pass a theory and practical test designed by the group's own safety manager. We also invest in the maintenance and improvement of road warning signs, and ensure that employees are aware a helmet is mandatory when riding a motorbike.

Healthcare

External healthcare provision is extremely limited in the remote locations of the group's operations. The group has established a network of 16 clinics, which treat employees, their families and also members of the local communities. Medical care is provided by two doctors, a dentist and a team of paramedics and midwives. The medical team conducts a monthly immunisation programme for families, including collaborations with external medical professionals to participate in the Indonesian government's polio immunisation programme. The medical team also conducts blood tests twice a year to check for chemical exposure in workers who come into regular contact with pesticides. If workers test positive for pesticide exposure, they are rotated out of spraying and into other roles. All permanent employees are also provided with health insurance, which covers families as well as workers for off-site treatment if required.



Figure 31: Circumstances in which fatalities occurred, 2015-2016

Work related accident



- 1. Early afternoon, 24th October 2015**
a casual labourer fell from the back of a truck. He was transported by witnesses to the nearest health centre but was unfortunately pronounced dead on arrival from a suspected heart attack.
- 2. Late morning, 11th December 2015**
a contractor standing on the side of a trailer whilst it was moving fell off and was run over by the vehicle, causing fatal head injuries.
- 3. Morning, 19th December 2016**
a contractor was crushed by a truck on a hydraulic lift after reaching for a tool underneath the truck without first switching the engine off.

Non-work related accident



- 1. Mid-morning, 12th August 2015**
an off-duty security guard travelling home on his motorbike was hit at a road junction by a truck travelling at over 60km/hr. He was transported to the nearest clinic but died before he could be transported to hospital.
- 2. Morning, 15th October 2015**
an unattended two year old daughter of an employee was hit by a truck passing the company housing area where the girl lived. She died in transit from the local clinic to the company's main clinic.
- 3. Afternoon, 29th October 2015**
the mother of an employee died of head injuries after being hit by a truck whilst on her motorbike. The truck had accelerated to climb a hill and had not seen the motorbike.

Non-work related accident



- 1. Morning, October 2016**
the son of a tugboat operator drowned after being swept off Pulau Pinang pier as he played when the river swelled and flooded the pier.
- 2. Afternoon, 9th January 2017**
an eleven year old girl drowned after jumping into a pool at the side of the river near the group's operations. She was unaware that the pool was deep and unable to swim.

- The accident involved a REA employee and occurred during working hours on company premises
- The accident involved a REA employee or relative outside of working hours but on company property
- The accident involved a REA employee or relative but occurred outside of working hours and off company property

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Scope

This is the third sustainability report published by REA, fulfilling our commitment to produce a sustainability report biennially. The report mainly focuses on the group's performance in 2015 and 2016, although material developments occurring up to May 2017 have been included. Unless stated otherwise, the information and data included in this report relates to all of the oil palm plantation, mills and storage facilities in which REA had a shareholding as at 31 December 2016. REA's small mining business, which accounts for less than 10 per cent of our assets and generated no revenue in 2016, has not been included within the scope of this report. Similarly, this report does not provide detailed information about our small offices in London and Singapore, which employ 11 people in total.

We have endeavoured to ensure that the data included in this report is comprehensive and will provide stakeholders with an accurate insight into our sustainability performance. Where inconsistencies have been identified between the data currently available and information published previously this has been highlighted and explained.

We will aim to publish our fourth sustainability report in 2019, alongside the annual report for 2018. Previously published reports, including the 2016 annual report and 2014 sustainability report are available from the group's website: www.rea.co.uk.

Stakeholder engagement and materiality

Stakeholder engagement

The group has always been open to engaging with stakeholders as we believe that working in partnership enhances our positive socio-economic and environmental impacts. Throughout 2015 and 2016, we have continued to engage in regular and structured dialogue with local stakeholders, including the leaders and populace of local communities, local police and government, independent farmers and our own employees. These meetings create valuable opportunities for dialogue regarding stakeholder

priorities and expectations of the company that help us adapt and improve our approach to sustainability accordingly. Over the last two years the group has been expanding our operations whilst undergoing restructuring. This has resulted in less engagement with non-local stakeholders, such as universities and NGOs, as our focus has been more inward-looking. Over the next two years we intend to turn our attentions back to reinvigorating existing links and developing new collaborations with national and international institutions that can enhance our sustainability and conservation efforts.

Stakeholder group	Organisation and details of engagement	Issue
Scientific institutions	CIRAD: advice on fertiliser regimes	Best agricultural practices
Multi-stakeholder organisations	<p>The Roundtable on Sustainable Palm Oil (RSPO):</p> <ul style="list-style-type: none"> notification of annual surveillance and five year recertification audits submission of annual communication of progress attendance at annual meeting and workshops submission of HCV compensation liability proposals submission of funding proposal to the RSPO Smallholder Support Fund ("RSSF") for SNV project 	Biodiversity conservation and HCV management; compliance with international sustainability standards
NGOs	<p>SNV:</p> <ul style="list-style-type: none"> continued implementation of their "train-the-trainer" programme to improve the practices of independent smallholders prepared a proposal for funding from the RSSF to continue and expand the smallholder training programme across our whole supply base 	Smallholders; best agricultural practices
	<p>The Forest Trust ("TFT"):</p> <ul style="list-style-type: none"> held a preliminary discussion with TFT and Louis Dreyfus Corporation ("LDC") regarding our current sustainability challenges and potential future assistance with reconfiguring our supply chain and improving independent smallholder practices 	Sustainability standards; smallholders; supply base
Government	<p>Indonesian national electricity company (PLN):</p> <ul style="list-style-type: none"> collaboration to supply electricity generated by the REAK methane capture facilities to local villages 	GHG emissions reduction; community development
	<p>The regional Department for the Conservation of Natural Resources (BKSDA):</p> <ul style="list-style-type: none"> environmental monitoring and education, human-orangutan conflict training 	Biodiversity conservation and HCV management; pollution incidents
	<p>Local government:</p> <ul style="list-style-type: none"> production of village boundary maps; mediation of claims for land compensation; ongoing dialogue regarding FPIC, local security and development of plasma cooperatives 	Smallholder schemes; FPIC; social impact assessments; community developments

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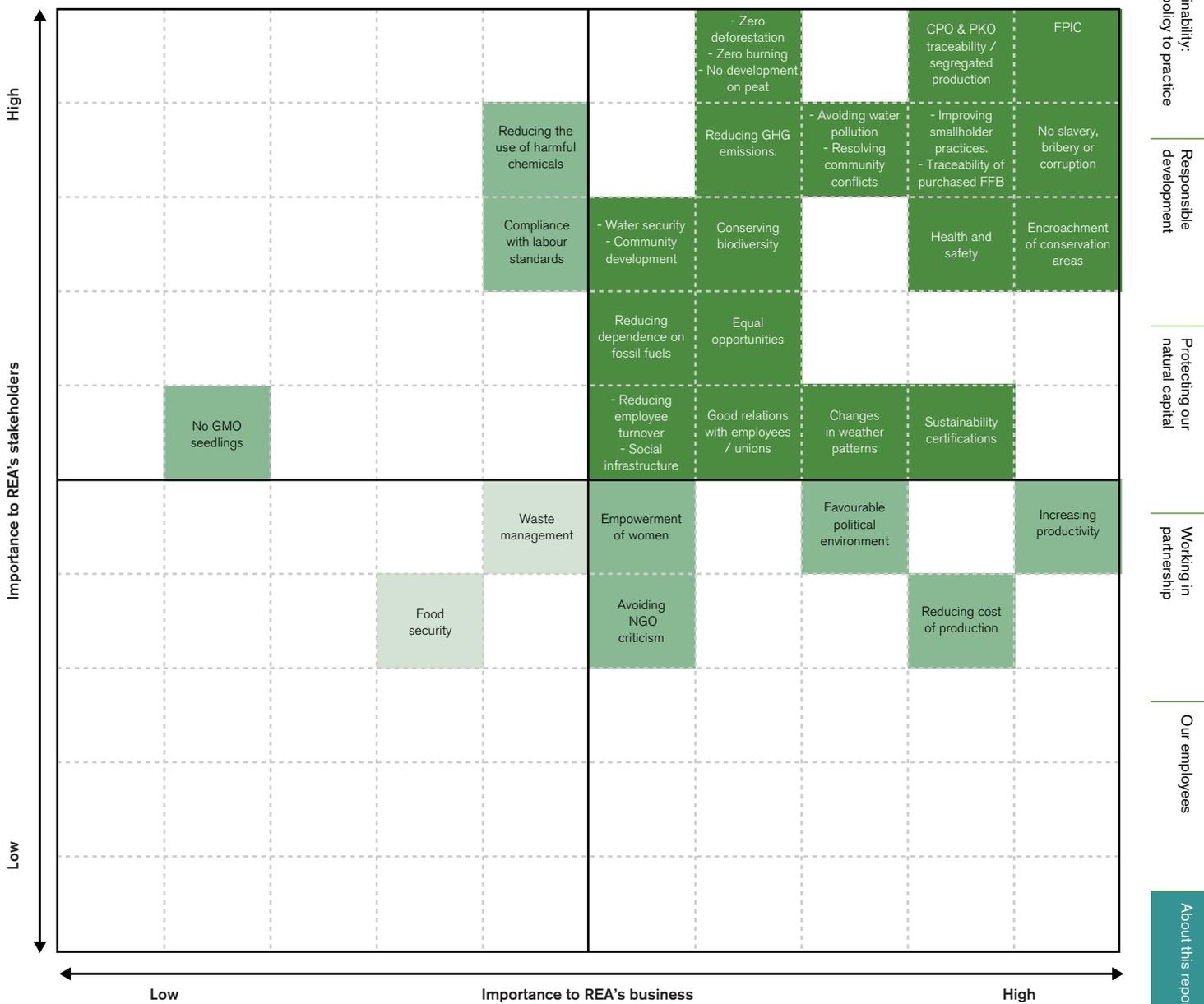
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Stakeholder group	Organisation and details of engagement	Issue
Local communities	Plantation and village school children: <ul style="list-style-type: none"> hosted weekend conservation education camps and routine extra-curricular activities in plantation primary schools 	Biodiversity conservation and HCV management
	Ongoing dialogue with all villages in the vicinity of REA's operations by REA's department of villager affairs and community perception audit by Daemeter	Smallholder schemes; FPIC; social impact assessments; community development projects
Employees	Exit interviews, bi-annual assessment of performance against KPIs, gender committee meetings and management-employee forums	Employee satisfaction and performance
	Routine dialogue with REA Kon to explain the importance of maintaining the integrity of the conservation reserves	Biodiversity conservation and HCV management
	Regular health and safety training	Health and safety
Oil palm growers	Dharma Satya Nusantara ("DSN"): <ul style="list-style-type: none"> meetings relating to strategic partnership, sustainability and collaboration with NGOs 	Financial; industry sustainability standards
	Indonesian growers association: <ul style="list-style-type: none"> member, attended annual conference 	Industry trends
Financial institutions	Due diligence exercises	Compliance with sustainability standards
Customers	Louis Dreyfus Company ("LDC"): discussions on future strategic partnership, supply chain sustainability and collaborating with TFT regarding smallholder practices	Compliance with sustainability standards
	Participation in due diligence exercises	Compliance with sustainability standards

Materiality

In deciding the content of this report we have sought to focus on the issues that are considered to be of critical importance to our business and of greatest concern to our stakeholders. A materiality assessment was conducted based on the input received through dialogue with a wide variety of stakeholders over the last two years and input from members of the REA board of directors in London, the REAK board of directors in Indonesia and key members of our senior plantation management team.

Figure 32: Our materiality matrix



Glossary

Biodiversity	This refers to the variety of different living organisms found in a particular region.
Biological Oxygen Demand (BOD)	This is the amount of dissolved oxygen that would be needed by micro-organisms to break down all of the organic matter present in a sample of water at a certain temperature over a specific time period. It is frequently used as an indicator of water quality.
Book and Claim System (Greenpalm)	This system enables buyers looking to support the production of RSPO certified palm oil to purchase certificates from RSPO certified palm oil producers. Each certificate represents one metric tonne of RSPO certified CPO or CPKO. GreenPalm was the platform by which certificates were traded until 1 January 2017 when the RSPO's own platform, PalmTrace, took over. More information is provided in Box 3, page 28.
Carbon Footprint	A carbon footprint measures the total greenhouse gas emissions caused directly and indirectly by a person, organisation, event or product.
European Union's Renewable Energy Directive (EU RED)	This directive, which was introduced in 2009, provides the regulatory framework needed to promote the use of renewable energy by EU member states in order to assist the EU to meet its targets for renewable energy consumption. It also lays out a set of sustainability criteria for the production of biofuels, which must be complied with in order for the consumption of biofuels to contribute towards targets for the use of renewable energy.
Free, Prior and Informed Consent (FPIC)	This is the principle, which is rooted in international human rights law, that a community has the right to give or withhold its consent to a proposed project that may affect land or natural resources that they customarily own, occupy or otherwise use. It necessitates that communities that may be affected are consulted well in advance of a project commencing, provided with sufficient details regarding the nature of the project to make an informed decision, and that consent is granted without coercion or intimidation.
Global Reporting Initiative (GRI)	The GRI has developed an internationally recognised framework for organisations to report on their economic, environmental and social performance.
Greenhouse Gas (GHG)	A gas which traps the sun's energy in the earth's atmosphere. Scientific research suggests that increasing levels of GHGs are causing the climate to change in a variety of ways, including increases in global temperature, sea level rise and changing patterns of drought and flooding events.
High Conservation Values (HCVs)	HCV areas are natural habitats that are considered to support biodiversity, ecosystem functions or socio-cultural values that are considered to be of outstanding significance or critical importance.
Lethal Dose 50% (LD50)	LD50 is used as an indicator of the toxicity of a substance. The LD50 is the dose of a substance (mass per kg of bodyweight) which would kill 50 per cent of the population of a test organism when administered in a particular way over a specified period of time. For example, LD50 oral rats is the dose of a substance which, when administered orally, would kill 50 per cent of the rat population tested.
Mass Balance	A mass balance system allows certified and uncertified palm oil to be mixed at any stage in the supply chain. An accounting system is used to track the proportion of palm oil at each stage in the supply chain which corresponds to the volume of certified palm oil produced.
Stakeholders	An individual or group with a legitimate and/or demonstrable interest in, or directly affected by, the activities of an organisation and the consequences of those activities.
Sustainability	The creation of the environmental, social and economic conditions necessary to enable something to continue for the foreseeable.
CO₂ equivalents (CO₂eq)	Emissions of GHGs other than carbon dioxide are converted to tonnes of carbon dioxide equivalent by estimating the amount of gas emitted and multiplying it by its global warming potential. This allows the potential impact on global warming of the GHG emissions associated with a person, organisation or product to be compared even when they comprise different GHGs.

Base data and notes

Calculations

Employee turnover: the employee turnover rate is calculated by dividing the total number of resignations over the course of the year by the average number of employees in each category (e.g. management, permanent staff) at the end of each month during the year.

Lost time accident rates: the lost time accident rate is calculated by dividing the total number of accidents for which the clinic recommended the patient to take one or more calendar day as rest, by the total number of man hours worked (man days x 7 hours) and multiplied by 200,000. This includes fatalities. The data included relates to REAK's employees only; independent contractors have not been included.

Accident severity rates: the accident severity rate is calculated by dividing the total number of lost days caused by accidents by the total number of accidents for which the clinic recommends one or more day of rest to be taken. Fatalities are not included.

GHG emissions: version 3.0.1 of the RSPO's PalmGHG calculator has been used to calculate our carbon footprint for 2013 – 2016 for the purposes of this report. The PalmGHG calculator is free to download from the RSPO website (www.rspo.org/certification/palm-ghg-calculator).

Toxicity per hectare: a toxicity index for each herbicide used was calculated by multiplying the amount of active ingredient per litre or kg of product applied (in grammes) by the inverse of the Lethal Dose for 50 per cent of the rats tested when the active ingredient is administered orally (LD50 rats, oral). The toxicity per hectare is calculated by multiplying the total amount of each product applied by its toxicity index and dividing this by the total planted area in each estate.

$$\text{Active ingredient (mg)} \times \frac{1}{\text{LD50 oral rats (mg)}} \times \frac{\text{Amount of product applied}}{\text{Planted area}}$$

Restatements of data

GHG emissions: our carbon footprint for 2013 and 2014 has been recalculated using the latest version of the PalmGHG software (version 3.0.1). As a result of this, many of the values linked to our carbon footprint, including GHG emissions intensity, have changed in comparison to those published in our previous sustainability report and REA's annual report for 2013, 2014 and 2015. In the 2016 report, the quoted net emissions per tonne of CPO were calculated by combining CPO and CPKO. In this report the data for CPO and CPKO are presented separately and consequently the GHG emission intensities quoted in this report differ from the annual report. Due to a recalculation of the group's planted area, the net GHG emissions per planted hectare have been changed, but data stated in this report differs from the 2016 annual report.

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Base data

Financial	FY 2014	FY 2015	FY2016
Income statement	\$'000	\$'000	\$'000
Revenue	125,865	90,515	79,265
Operating profit	32,116	6,553 loss	5,026 loss
Profit before tax	23,744	12,245 loss	9,289 loss
Net profit	21,981	12,931 loss	11,308 loss
Balance sheet			
Total assets	608,687	628,439	670,862
Total liabilities	302,062	334,617	361,312
Shareholders' funds	306,625	293,822	309,550

* FY 2015 data has been restated due to adoption of amended IAS41, effective 1 January 2016. See "Accounting Policies (group)" on page 86 of the 2016 Annual report and accounts.

Land	As at 31 December 2014	As at 31 December 2015	As at 31 December 2016
REA estates	(Hectares)	(Hectares)	(Hectares)
Oil palm planted			
REAK	22,986	22,986	22,986
SYB (post-swap)	5,050	5,050	5,050
KMS	4,538	4,538	4,538
PBJ	810	2,917	6,870
CDM	1,230	1,606	3,402
Group total	34,614	37,097	42,846
of which mature oil palm	28,275	29,367	31,521
of which immature oil palm	6,339	7,730	11,325
Conservation reserves			
REAK	5,324	4,961	4,961
SYB	2,676 (pre-swap)	2,676 (pre-swap)	1,605 (post-swap)
KMS	2,055	2,027	2,027
PBJ	2,211	2,343	2,343
CDM	5,050	6,832	6,832
Group total	17,316	18,839	18,831*
Titled land area			
REAK	30,106	30,106	30,106
SYB (pre-swap)	11,771	11,771	11,771
KMS	7,321	7,321	7,321
PBJ	11,603	11,603	11,603
CDM	9,784	9,784	9,784
Group total	70,584	70,584	70,584

Financial	FY 2014	FY 2015	FY2016
Land allocations			
SYB (pre-swap)	2,212	2,212	2,212
KMS	1,964	1,964	1,964
PBJ	2,564	2,564	2,564
CDM	6,280	6,280	6,280
KKS (area adjacent to CDM)	5,150	5,150	5,150
KKS (provisional allocation)	12,050	12,050	12,050
PBJ2	7,411	7,411	7,411
Group total	37,631	37,631	37,631*
* Includes 1,063ha of conservation reserves in developing estates not included in the base data			
Land bank			
Group total	108,215	108,215	108,215
Plasma scheme smallholders			
Oil palm planted	3,130		
Production			
Plantation operations			
FFB produced from group land areas (MT)	631,728	600,741	468,371
FFB yield per mature hectare (MT)	22.3	20.5	14.9
Mill operations			
FFB purchased from plasma smallholders (MT)	8,875	10,055	9,682
FFB purchased from PPMD and independent smallholders (MT)	110,414	115,740	80,666
FFB purchased from commercial outgrowers (MT)	30,232	11,647	7,399
FFB processed in REA mills (MT)	774,420*	728,871	560,957
* Restated. Given as 780,730 in 2014 sustainability report			
CPO extraction rate (%)	21.9*	22.2	22.8
* Restated. Given as 21.7 in 2014 sustainability report			
PK extraction rate (%)	4.6	4.7	4.7
CPO production (MT)	169,466	161,844	127,697
* Restated. Given as 151,516 in 2014 sustainability report			
Palm kernel (PK) production (MT)	35,812	33,877	26,371
* Restated. Given as 35,764 in 2014 sustainability report			
CPKO production (MT)	12,610	12,557	9,840
* Restated. Given as 12,596 in 2014 sustainability report			
CSPO production			
ISCC and RSPO certified CPO (MT)	89,052	105,199	60,942
RSPO only certified CPO (MT)	11,690	11,329	9,485
RSPO only certified sustainable CPKO (MT)	9,563	5,274	4,724

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Environmental impact	2014	2015	2016
Average BOD levels of POME applied to land (regulations require this to be below 5,000 mg/litre)	mg/litre	mg/litre	mg/litre
POM	357	1646*	224
* The 2015 average BOD level is high due to the June reading being very high from improper sampling of the POME. Excluding this reading, the average BOD level is 295.			
COM	311	428	215
SOM	1,328	478	132
Financial	FY 2014	FY 2015	FY2016
Fertiliser inputs	MT	MT	MT
Total inorganic fertiliser applied (REAK & SYB)	10755*	23,723	24,012
	(REAK, SYB & KMS)	(REAK, SYB, KMS, CDM & PBJ)	(REAK, SYB, KMS, CDM & PBJ)
* Restated to include KMS.			
Inorganic fertiliser per planted hectare	0.38*	0.6	0.53
*Restated to include KMS.			
Total compost applied	106,445	102,096	83,673
	(REAK, SYB & KMS)	(REAK, SYB, KMS, CDM & PBJ)	(REAK, SYB, KMS, CDM & PBJ)
Herbicide inputs			
Toxicity per planted hectare	361	267	195
Carbon footprint	2014*	2015	2016
* Restated due to recalculation using most recent PalmGHG software			
Group GHG emissions by source	tCO ₂ ,eq	tCO ₂ ,eq	tCO ₂ ,eq
Land clearing	428,876	693,092	677,082
Methane from POME	84,625	129,432	92,504
Peat CO ₂ emissions	51,559	61,501	58,258
Inorganic fertiliser	27,388	34,319	32,867
Fuel for transport and storage	5,957	9,384	6,273
Cultivation of outgrower FFB (estimated)	47,660	72,157	55,406
Organic fertilisers	8,175	19,537	22,529
Fuel for gensets	2,344	695	803
Group carbon sequestration and GHG emissions avoidance	tCO ₂ ,eq	tCO ₂ ,eq	tCO ₂ ,eq
Credit for electricity generated from methane	8,294	7,648	13,296
Sequestration by conservation reserves	95,695	185,882	158,630
Sequestration by crops	310,120	350,430	394,475
Community investment	2014	2015	2016
	IDR (US\$)	IDR (US\$)	IDR (US\$)
Fuel	3.71 billion (278,822)	4.01 billion (301,290)	0.75 billion (56,360)
Donations	3.00 billion (224,400)	798098312 (59,698)	354128423 (26,489)
Water	1.67 billion 1249158501	1.40 billion (104,427)	0.04 billion (3,265)
Roads	0.37 billion (27,676)	0.24 billion (17,928)	0.09 billion (6,862)

Employees	2014	2015	2016			
REA - London	9	9	8			
REA - Singapore	1	2	3			
Plantation companies - Indonesia:						
REAK	6,672	4,971	5,433			
SYB	1,611	987	1,152			
KMS	723	511	525			
PBJ	463	336	871			
CDM	321	223	387			
TOTAL	9,790	7,028	8,368			
Plantation companies' employees, by level and gender						
	Male	Female	Male	Female	Male	Female
Management	53	10	57	8	55	8
Other permanent staff	226	49	246	59	245	65
Permanent workers	4,798	855	4,325	836	4,313	814
Casual workers	2,076	1,723	828	669	1,449	1,419
Total	7,153	2,637	5,456	1,572	6,062	2,306
Employee turnover						
	Total no. resignations	%	Total no. resignations	%	Total no. resignations	%
Management	15	25%	15	24%	12	20%
Other permanent staff	35	13%	34	12%	24	8%
Workers	914	16%	1118	20%	794	15%
Health and Safety						
Lost time accident rates						
REAK estates	8.5	10.3	29.8			
SYB estates	1.4	2.4	10.9			
KMS estates	1.4	0.0	3.7			
CDM estates	4	1.4	0.8			
PBJ estates	No data	0.0	0.0			
POM	0.5	2.6	5.8			
COM	0.5	1.1	2.5			
SOM	2.2	0.7	1.7			
Group total	6.3	7.1	20.4			
Severity rates						
REAK estates	1.8	2.4	2.0			
SYB estates	3.6	2.3	2.4			
KMS estates	1	0.0	3.0			
CDM estates	3.3	2.5	3.0			
PBJ estates	No data	0.0	0.0			
POM	1	7.7	1.2			
COM	6	20*	1.4			
SOM	1.7	1.0	5.5			
Group total	1.9	2.9	2.1			

*Only two accidents were recorded at COM in 2015 - the reported value is high due to a single accident that resulted in a large number of days off.

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Global Reporting Initiative (GRI) Index

The Global Reporting Initiative (GRI) framework is the most widely used and comprehensive sustainability reporting standard in the world. Therefore, in preparing this report we have sought to comply with GRI 4 standard (valid until July 2018), as this will ensure that we measure and explain our sustainability goals, performance and impacts in a way

that is comparable with other organisations and our own previous reports. We believe that this report fulfils the core requirements of this standard. However, the assurance column required by G4 has not been included as no sections of this report have been formally assured.

General standard disclosures

General Standard Disclosures		Level of reporting	Location of disclosure or reason for omission	Page
Strategy and analysis				
G4-1	Statement from the most senior decision maker of the organisation	Full	Statement from the board of directors	6
Organisational profile				
G4-3	Name of organisation	Full	Operations and sales	11
G4-4	Primary products, brands and services	Full	Operations and sales	11
G4-5	Headquarters location	Full	Operations and sales	11
G4-6	Countries of operation	Full	Operations and sales	11
G4-7	Nature of ownership and legal form	Full	Corporate governance and management structure	16
G4-8	Markets served	Full	Operations and sales	11
			POME and renewable energy	52
			Community development	57
G4-9	Scale of the organisation	Full	Operations and sales	11
			Base data and notes	81
G4-10	Organisation's workforce	Full	Operations and sales	11
			Base data and notes	81
			Our workforce	66
G4-11	Total employees covered by collective bargaining agreements	Full	Respecting workers' rights	69
G4-12	Organisation's supply chain	Full	Operations and sales	11
			Smallholders	59
G4-13	Significant changes during the reporting period regarding size, structure, ownership or its supply chain	Full	Operations and sales	11
			Responsible development	30
			Smallholders	59
G4-14	Explanation of whether and how the precautionary approach or principles is addressed by the organisation	Full	Responsible development	30
G4-15	Externally developed economic, environmental and social charters, principles or other initiatives	Full	Business ethics	18
			Sustainability certification	24
G4-16	Memberships of associations and national/international advocacy organisations	Full	Stakeholder engagement and materiality	77

General standard disclosures - continued

General Standard Disclosures		Level of reporting	Location of disclosure or reason for omission	Page
Identified material aspects and boundaries				
G4-17	Entities included in the organisation's consolidated financial statements or equivalent documents	Full	Annual report and accounts REA Holdings plc	www.rea.co.uk
G4-18	Process for defining report content and the aspect boundaries	Full	Scope	76
G4-19	List all of the material aspects identified in the process for defining report content	Full	Stakeholder engagement and materiality	77
G4-20	Aspect boundary within the organisation	Full	Stakeholder engagement and materiality	77
G4-21	Aspect boundary outside of the organisation	Full	Stakeholder engagement and materiality	77
G4-22	Restatements of information provided in the previous report	Full	Base data and notes	81
G4-23	Significant changes from previous reporting of the scope and aspect boundaries	Full	No significant changes from previous reporting of the scope and aspect boundaries	
Stakeholder engagement				
G4-24	List of stakeholder groups engaged by the organisation	Full	Stakeholder engagement and materiality	81
G4-25	Basis for identification and selection of stakeholders with whom to engage	Full	Stakeholder engagement and materiality	81
G4-26	Approach to stakeholder engagement, including frequency of engagement by type and by stakeholder group	Full	Stakeholder engagement and materiality	81
G4-27	Key topics and concerns that have been raised through stakeholder engagement, and how the organisation has responded to those key topics and concerns, including through its reporting	Full	Stakeholder engagement and materiality	81
Report profile				
G4-28	Reporting period	Full	Scope	76
G4-29	Date of most recent previous report	Full	Scope	76
G4-30	Reporting cycle	Full	Scope	76
G4-31	Contact point	Full	Contact us	91
G4-32	GRI content index	Full	GRI Index	86
G4-33	External assurance	Full	This report has not been externally assured	
Governance				
G4-34	Organisation's governance structure	Full	Corporate governance and management structure	16
Ethics and integrity				
G4-56	Organisation's values, principles, standards and norms of behaviour	Full	<ul style="list-style-type: none"> • Business ethics • Policy framework 	18 23

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Specific standard disclosures

Material aspects	Disclosures on management approach and indicators	Level of reporting	Location of disclosure or reason for omission	Page	
Category: Economic					
	Disclosure on management approach	Full	<ul style="list-style-type: none"> Corporate governance and management structure Business ethics Sustainability: from policy to practice 	16 18 22	
Economic performance	G4-EC1	Direct economic value generated and distributed	Partial	Base data and notes	81
	G4-EC2	Financial implications and other risks and opportunities for the organisation's activities due to climate change	Partial	Climate change	48
	G4-EC5	Ratios of standard entry level wage by gender compared to local minimum wage at significant locations of operation	Full	Respecting workers' rights	69
Indirect economic impact	G4-EC7	Development and impact of infrastructure investments and services supported	Full	Community development	57
Procurement	G4-EC9	Proportion of spending on local suppliers at significant locations of operations	Full	Smallholders	59
Category: Environmental					
	Disclosure on management approach	Full	<ul style="list-style-type: none"> Sustainability: from policy to practice Responsible development Protecting our natural capital 	22 30 33	
Materials	G4-EN1	Materials used by weight or volume	Full	<ul style="list-style-type: none"> Reducing chemical usage Climate change Base data and notes 	34 48 81
Energy	G4-EN3	Energy consumption within the organisation	Full	Climate change	48
	G4-EN6	Reduction of energy consumption	Partial	Climate change	48
Water	G4-EN9	Water sources significantly affected by withdrawal of water	Partial	Water	42
Biodiversity	G4-EN11	Operational sites owned, leased, managed in, or adjacent to, protected areas and areas of high biodiversity areas outside of protected areas	Full	<ul style="list-style-type: none"> Operations and sales Conserving biodiversity Base data and notes 	11 81
	G4-EN12	Description of significant impacts of activities, products, and services on biodiversity in protected areas and areas of high biodiversity value outside protected areas	Full	<ul style="list-style-type: none"> Conserving biodiversity Water 	34 42
	G4-EN13	Habitats protected or restored	Full	Conserving biodiversity	34
	G4-EN14	Total numbers of IUCN Red List species and national conservation list species with habitats in areas affected by operations, by level of extinction risk	Full	Conserving biodiversity	34

Specific standard disclosures - continued

Material aspects	Disclosures on management approach and indicators	Level of reporting	Location of disclosure or reason for omission	Page		
Category: Environmental						
Emissions	G4-EN15	Direct greenhouse gas (GHG) emissions (Scope 1)	Full	Climate change	48	Our business Commitments and targets
	G4-EN16	Energy indirect greenhouse gas (GHG) emissions (Scope 2)	Partial	Climate change	48	
	G4-EN17	Other indirect greenhouse gas (GHG) emissions (Scope 3)	Partial	Climate change	48	
	G4-EN18	Greenhouse gas (GHG) emissions intensity	Full	Climate change	48	
	G4-EN19	Reduction of greenhouse gas (GHG) emissions	Full	Climate change	48	
Products and services	G4-EN27	Extent of impact mitigation of environmental impacts of products and services	Full	<ul style="list-style-type: none"> Climate change Adapting our fertiliser regimes 	48	Sustainability: from policy to practice
					46	
Compliance	G4-29	Monetary value of significant fines and total number of non-monetary sanctions for noncompliance with environmental laws and regulations	Full	<ul style="list-style-type: none"> Water No monetary fines were levied in 2015/2016 	42	Responsible development
Environmental grievance mechanisms	G4-EN34	Number of grievances about environmental impacts filed, addressed, and resolved through formal grievance mechanisms	Full	Water	42	
Category: Social – labour practices and decent work						
Disclosure on management approach			Full	<ul style="list-style-type: none"> Sustainability: from policy to practice Our employees 	22	Protecting our natural capital
					65	
Employment	G4-LA1	Total number and rates of new employee hires and employee turnover by age group, gender and religion	Partial	Our workforce	66	
Occupational health and safety	G4-LA6	Type of injury and rates of injury, occupational diseases, lost days, and absenteeism, and total number of work-related fatalities, by region and gender	Partial	Occupational health and safety	72	Working in partnership
Diversity and equal opportunity	G4-LA12	Composition of governance bodies and breakdown of employees per employee category according to gender, age group, minority group membership, and other indicators of diversity	Partial	<ul style="list-style-type: none"> Corporate governance and management structure Respecting workers' rights Base data and notes 	16	Our employees
					69	
					81	

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Material aspects	Disclosures on management approach and indicators	Level of reporting	Location of disclosure or reason for omission	Page
Category: Social – human rights				
	Disclosure on management approach	Full	<ul style="list-style-type: none"> • Policy framework • Respecting workers' rights 	23 69
Child labour	G4-HR5 Operations and suppliers identified as having significant risk for incidents of child labour, and measures taken to contribute to the effective abolition of child labour	Partial	Respecting workers' rights	69
Forced or compulsory labour	G4-HR6 Operations and suppliers identified as having significant risk for incidents of forced or compulsory labour, and measures to contribute to the elimination of all forms of forced or compulsory labour	Partial	Respecting workers' rights	69
Assessment	G4-HR9 Total number and percentage of operations that have been subject to human rights reviews or impact assessments	Partial	<ul style="list-style-type: none"> • Responsible development • Our workforce • Respecting workers' rights 	30 66 69
Category: Social – society				
	Disclosure on management approach	Full	<ul style="list-style-type: none"> • Business ethics • Responsible development • Our new policy framework • Working in partnership 	18 30 23 54
Local communities	G4-SO1 Percentage of operations with implemented local community engagement, impact assessments, and development programmes	Full	<ul style="list-style-type: none"> • Responsible development • Working in partnership with the community • Occupational health and safety • Respecting workers' rights 	30 54 72 69
	G4-SO2 Operations with significant actual and potential negative impacts on local communities	Full	<ul style="list-style-type: none"> • Responsible development • Working in partnership with the community 	30 54
Anticorruption	G4-SO3 Total number and percentage of operations assessed for risks related to corruption and the significant risks identified	Full	• Business ethics	18
	G4-SO4 Communication and training on anti-corruption policies and procedures	Full	Business ethics	18
	G4-SO5 Confirmed incidents of corruption and actions taken	Full	No cases in 2015/2016	
Public policy	G4-SO6 Total value of political contributions by country and recipient/beneficiary	Full	<ul style="list-style-type: none"> • Business ethics • No contributions in 2015/2016 	18
Anticompetitive behaviour	G4-SO7 Total number of legal actions for anti-competitive behaviour, anti-trust and monopoly practices and their outcomes	Full	None in 2015/2016	
Compliance	G4-SO8 Monetary value of significant fines and total number of non-monetary sanctions for non-compliance with laws and regulations	Full	None in 2015/2016	
Grievance mechanisms for impacts on society	G4-SO11 Number of grievances about impacts on society filed, addressed, and resolved through formal grievance mechanisms	Full	Working in partnership with the community	54

About this report

Contact us

We value feedback from our stakeholders as this helps us to evaluate our approach to sustainability and improve our performance. Any comments or questions relating to the contents of this report or our sustainability performance more generally should be directed to:

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