CHAIN REACTION RESEARCH
sustainability risk analysis

INITIATING COVERAGE

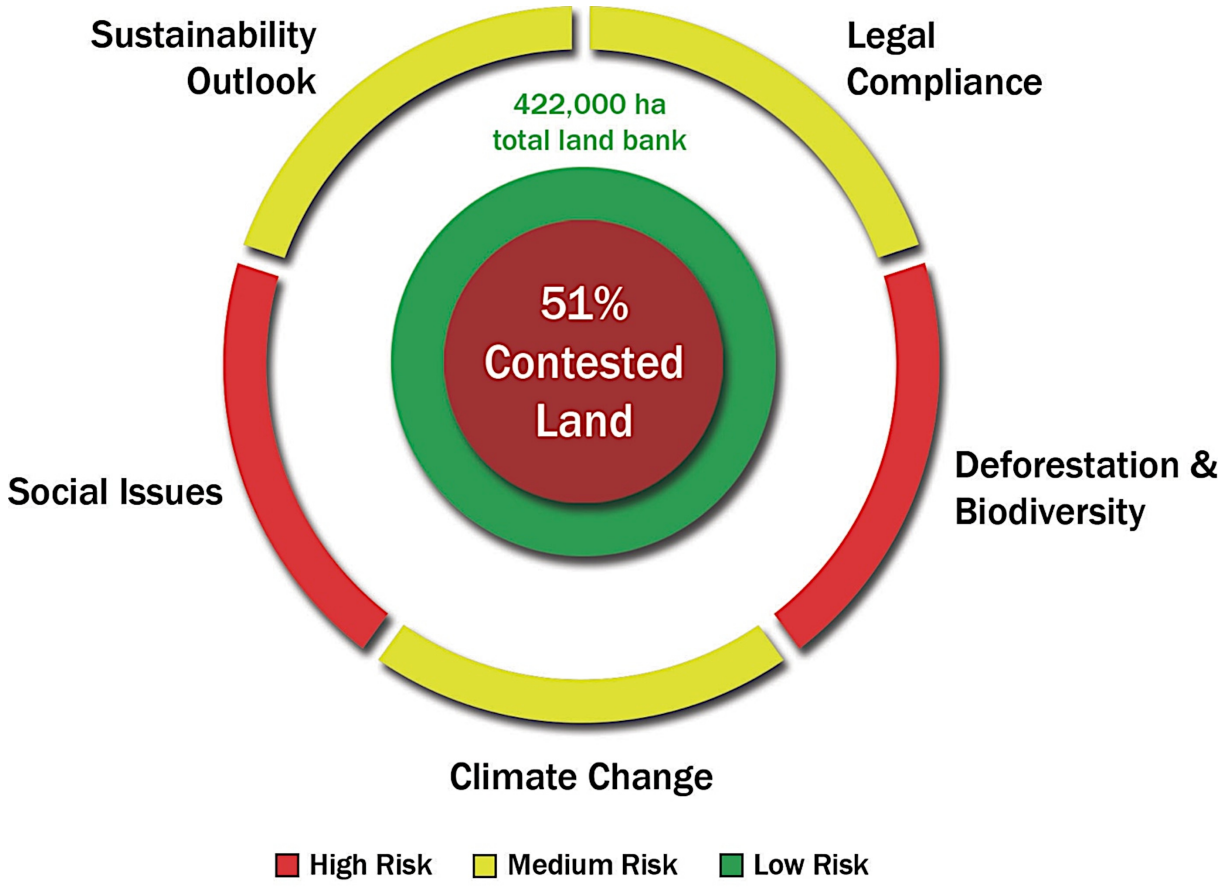
26 February 2015

Kuala Lumpur Kepong

HIGH RISK

Palm oil company

ISIN: MLY2445OO004



Summary

Kuala Lumpur Kepong (KLK) is a large Malaysian palm oil company. It manages more than 200,000 hectares of palm oil plantations in Indonesia, Malaysia and Liberia, and is active in the manufacturing of oleochemicals in Malaysia, China and Europe. The company is active across the total palm oil value chain, but the revenue from its palm oil plantations and mills accounted for 76 percent of KLK's total pre-tax profits in 2014.

As the palm oil sector undergoes radical transformation, Chain Reaction Research undertook a deep examination of KLK. Over the past year, companies controlling over 90 percent of the global palm oil trade have committed to No Deforestation, No Peat, No Exploitation policies. We sought to answer the question: **how does a company that has long operated in the shadows of an opaque palm oil sector now operate in a new era of increasing openness and sustainability?**

This report gives an overview of the company, delves into the environmental and social issues it faces, and presents a financial analysis of how sustainability risks may impact the bottom line. A draft version of the sustainability risks identified in this report was sent to KLK for review on November 24, 2014 and subsequently. KLK has not responded to Chain Reaction Research regarding these issues.

Top Findings

This analysis found significant, unresolved sustainability and transparency issues in KLK's supply chain, which bring significant risk to market access especially vis-à-vis its buyers and competitors. Due to its organizational structure and profit-centres, investors should take notice that KLK's risk profile is not only dependent on its own estates, but is exposed to risk because the group has yet to adopt a sustainability policy for its third-party suppliers:

- **Most of KLK's palm oil products are made with untraced third-party raw materials.** The vast majority of the palm oil products that KLK sells to its customers are derived from raw materials that come from third-party suppliers, which are not publicly disclosed. In 2014, KLK sold an estimated 3.5 million tons of palm oil products: about 30 percent came from its own plantations, while the other 70 percent came from external suppliers.
- **However, this is not how KLK generates the majority of its profit.** The revenue generation from KLK's own palm oil plantations and crude palm oil mills (which overwhelmingly process palm oil fruit from KLK's own plantations) accounted for 76 percent of KLK's total pre-tax profits in 2014. While this percentage fluctuates as palm oil prices change (it was 58 percent in 2013), KLK's own crude palm oil production operations are consistently the company's main profit driver.

Essentially, KLK generates a significant majority of its profits from its own plantations and mills where it could better control environmental and social practices and provide transparency. Yet those profits – and the company's future as a whole – are subject to significant risk because of the non-transparent, non-traceable palm oil it introduces into its supply chain before it sells refined products to customers, which are not generating the lion's share of its profits.

These risks are especially acute because some of KLK's biggest customers, such as consumer product giants Unilever and Procter & Gamble, have committed to source traceable, deforestation and exploitation-free palm oil. To maintain market access, KLK could commit to sourcing only zero-deforestation palm oil from third-party suppliers, or it could simplify its supply chain and retain control over a greater portion of the crude palm oil it grows and mills, giving it more transparency and

accountability that would significantly mitigate risk. It could do so while retaining the most profitable elements of its business.

Sustainability and Financial Risks

KLK is not transparent on several key indicators, and has been implicated in some very serious sustainability issues in recent years. KLK cleared at least 24,000 hectares of forest in Kalimantan over the past seven years, and was found guilty of causing fires by a Sumatran court in 2014. The company developed an estimated 17,500 ha of carbon-rich peatlands in Sumatra and Kalimantan, which by itself causes 1.1 million tons of annual CO_2 emissions – about the same as putting an additional 450,000 cars on the road. In addition, KLK's concessions in Liberia are in areas with significant endangered chimpanzee populations.

As KLK has attempted to enter regions such as Liberia and Papua New Guinea, the company has faced significant opposition from local communities. In Indonesia, there have been documented cases of severely poor working conditions and labour exploitation in the company's workforce. Recently, KLK announced a joint-venture agreement with Astra Agro Lestari, one of the most irresponsible actors in the palm oil industry, which introduces still more risk for the company.

In December 2014, KLK announced a "Sustainability Policy" that was widely criticized for not applying to the company's suppliers, trading partners, or joint ventures, and it did not commit to using the standard approach for calculating High Carbon Stock (HCS) forests. In January 2015, KLK made progress by announcing that – as it conducts its own study – it will employ the industry standards for HCS developed by The Forest Trust, Golden-Agri Resources, and Greenpeace. However, KLK's policy still does not bind its suppliers and partners to any No Deforestation, No Peat, No Exploitation standard, which means that it does not address some of the most serious sources of risk.

We conducted an analysis of how these sustainability risks translate into financial risk to KLK by comparing the key financial indicators between a baseline scenario and two alternatives:

- If KLK loses 20 percent of its total sales because customers with No Deforestation, No Peat, No Exploitation policies sever ties with the company, the net income margins would be lower than in the baseline scenario: 5.9 percent in FY2016 and 9.4 percent in FY2017. This would reduce Return on Assets (RoA) and Return on Equity (RoE), and therefore have a negative impact on the underlying value of KLK's stock price.
- If KLK loses 30 percent of its existing customers because it loses its membership in the Roundtable on Sustainable Palm Oil, the company would see a net loss of RM 311.8 million in FY2016 and a small net profit of RM 101.8 million in FY2017. The net income margins would drop to -3.5 percent and 1.0 percent in FY2016 and FY2017 respectively. RoA and RoE would also drop significantly to -2.4% and -4.0%, respectively, in FY2016. Given the company's low level of debt, the company's debt-equity ratio could increase up to 0.65 in FY2017.

Conclusion

Based on our analysis of these different scenarios, we conclude that KLK faces serious financial risks by failing to address the sustainability risks in its own operations and to its external procurement of palm oil products. Ignoring these issues could reduce sales, net income and net income margins of KLK significantly, which would affect RoE and RoA and would undermine the underlying value of KLK's stock.

Contents

1 Overview of Kuala Lumpur Kepong

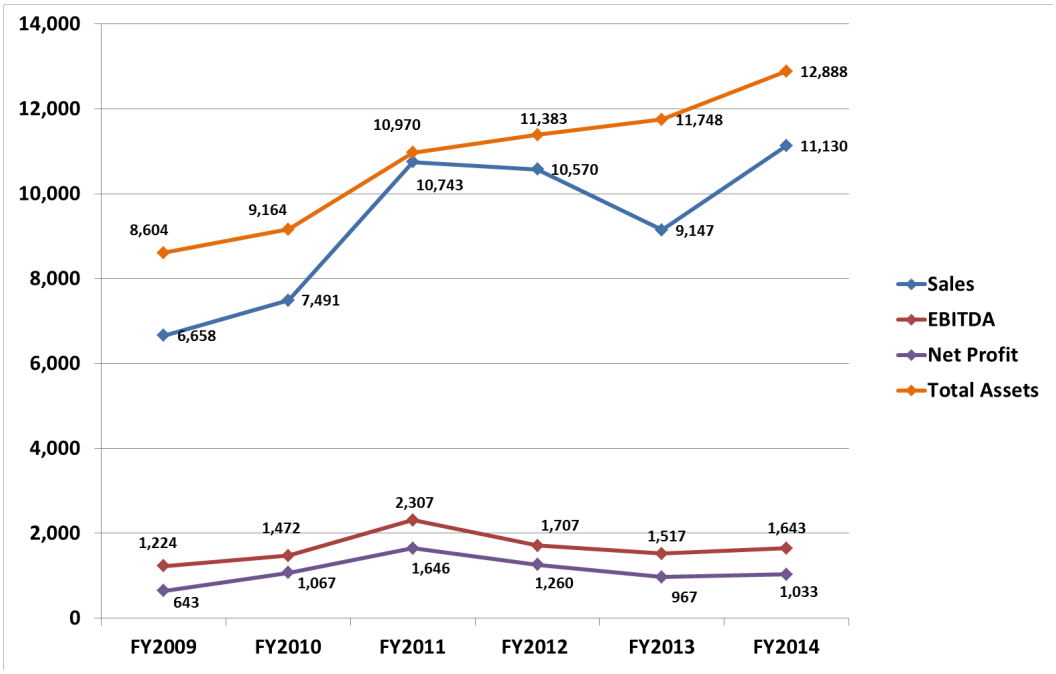
Kuala Lumpur Kepong (KLK) is a Malaysian palm oil company that operates 215,076 ha of oil palm and rubber plantations, and is active in the refining and trading of palm oil and the manufacturing of oleochemicals. The company is active internationally: its plantations, CPO mills and refineries are located in Peninsular Malaysia, Sabah and Indonesia, while its oleochemical plants are located in Malaysia, China, Switzerland, Germany, Belgium and The Netherlands. Additionally, the company is also engaged in real estate development.[1]

KLK was initially incorporated in England in 1906 by British merchants under the name of "Kuala Lumpur Rubber Co. Ltd." KLRC shares were listed on the London Stock Exchange in 1907.[2] During the independence process of Malaysia, the land price sharply fell to very low levels. This opened the opportunity for Lee Loy Seng, a Malaysian businessman, to acquire the company in 1971. In 1972, KLK was incorporated in Malaysia and it was listed on the Bursa Malaysia in 1974. At present, KLK is under the direction of Lee's sons Lee Oi Hian and Lee Hau Hian and is headquartered in Ipoh, Malaysia.[3]

1.1 Key financial figures

KLK had a market capitalization of RM 24.4 billion (or USD 6.8 billion) as of January 2015.[4] By September 30, 2014, KLK's sales had increased by 67.2% over the five previous years to RM 11.1 billion. EBITDA growth in the same period reached 34.2% while net profits appreciated by 60.7%, resulting in a slightly lower net profit margin (-3.9%). The downward trend in 2012 and 2013 was reversed in 2014, but EBITDA and net profit are still substantially lower than at their peak in 2011. Only total assets showed a consistent growth over the period (+49.8%).

Figure 1 KLK: Key financial indicators 2009-2014



Sources: Kuala Lumpur Kepong, Annual Reports 2010-2014; Bloomberg.

Table 1 shows that in FY2014, the Manufacturing segment (oleochemicals production) represented 50.6% of KLK's total sales, while the Plantations segment (which also includes the palm oil refineries) accounts for 47.0%. However, the Plantations segment is relatively more profitable, and represents 76.8% of KLK's total pre-tax profits. These profits are largely derived from KLK's oil palm plantations and CPO mills, which in 2014 accounted for no less than 76.1% of profits before tax. This means that, although KLK operates across the entire palm oil supply chain, its Return on Equity (RoE) remains critically dependent on its upstream operations.

Table 1 KLK's sales and profits per segment in 2014

Segment	Activity	Sales %	Profit before tax %
Plantations	Oil palm plantations and CPO mills	22.4	76.1
	Palm oil refineries	23.4	-1.0
	Rubber plantations	1.3	1.6
Manufacturing	Oleochemicals	50.6	20.9
Property development	Property	1.1	3.5
Other	Investments	1.3	-1.1
Total		**100.0**	**100.0**

Sources: Kuala Lumpur Kepong, "Annual Report 2014", December 2014, p. 13, 15-16, 27-28, 131; CRR calculations.

1.2 Oil palm plantations

At the end of September 2014, KLK had secured a total land bank of 246,765 ha in Malaysia (44%) and Indonesia (56%).[5] Additionally, KLK is embarking on a strategy to expand its plantations portfolio outside Malaysia and Indonesia. In 2012 and 2013 the company made inroads into Liberia (West Africa) and Papua New Guinea.[6] However, due to a court order in Papua New Guinea in May 2014, the company lost access to 38,000 ha in this country and is only left now with 6,000 ha of available land bank.[7] Moreover, its plans in Liberia raise sustainability questions. More information on KLK's expansion plans in Liberia and Papua New Guinea is provided in chapter 2.

Including the potential land banks in Liberia (169,000 ha) and Papua New Guinea (6,000 ha), KLK's total land bank would reach 421,785 ha. Table 2 shows the distribution per country and region.

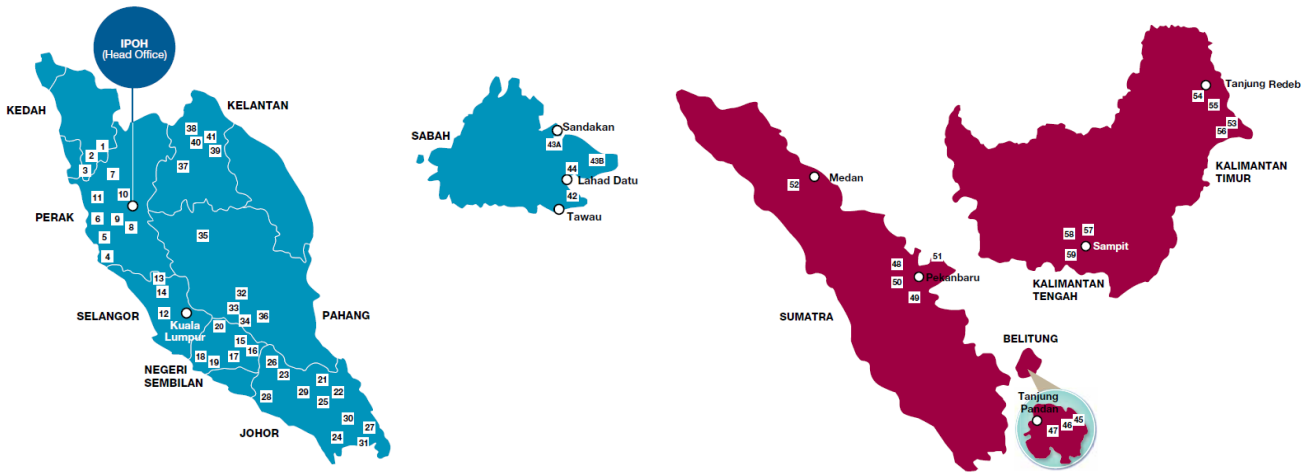
Table 2 Geographical distribution of KLK's land bank, end of FY 2014

Country	Region / Province	Land bank (ha)	%
	Peninsular Malaysia	68,920	16.3
	Sabah	40,359	9.6
Malaysia	**Total**	**109,279**	**25.9**
	Belitung	20,391	4.8
	Sumatra	56,942	13.5
	East Kalimantan	32,056	7.6
	Central Kalimantan	28,097	6.7
Indonesia	**Total**	**137,486**	**32.6**
Liberia		**169,000**	**40.1**
Papua New Guinea		**6,000**	**1.4**
Total		**421,765**	**100.0**

Source: Kuala Lumpur Kepong, "Annual Report 2014", p. 152-153; Kuala Lumpur Kepong, "Announcement to Bursa Malaysia: Update on Collingwood Plantation Pte Ltd", http://bit.ly/1rNZ5zk, 22 May 2014; Equatorial Palm Oil, "Our operations", Website Equatorial Palm Oil (http://bit.ly/U40ruE), Viewed in January 2015.

Figure 2 shows the locations of KLK's oil palm and rubber plantations and CPO mills in Malaysia and Indonesia.

Figure 2 Locations of KLK's plantations and mills in Malaysia and Indonesia



Source: Kuala Lumpur Kepong, "Annual Report 2014", p. 152-153.

At the end of September 2014, KLK had planted a total area of 215,076 ha with oil palms and rubber in Indonesia and Malaysia. Oil palm plantations represented 200,597 ha (93%) of the total planted area, with the remaining 7% planted with rubber.[8]

Table 3 shows that 84% of KLK's oil palm plantations have reached maturity. The average age of its palm oil trees is 11 years. Of the Malaysian and Indonesian land bank 34,775 ha (14% of the total in the two countries) were plantable reserves at the end of 2014. Conservation areas comprise 12,253 ha.[9]

Table 3 KLK's oil palm planted area, end of FY 2014

Status	Malaysia	Indonesia	Liberia	Total
Mature	82,817	85,426	-	168,243
Immature	7,278	19,388	5,688	32,354
Planted	**90,095**	**104,814**	**5,688**	**200,597**
% Mature	92	82	0	84
% Immature	8	18	100	16

Source: Kuala Lumpur Kepong, "Annual Report 2014", p. 28.

1.3 CPO mills

At the end of September 2014, KLK operated 25 CPO mills – 14 in Malaysia and 11 in Indonesia.[10] The total capacity of these mills is over 1,100 metric tons/hour.[11] A 60 mt/hour CPO mill in North Sumatra became operational in April 2014. In East Kalimantan, the capacity of an existing mill was increased to 100 mt per hour in 2014. Two new mills, one in Central Kalimantan and the other in East Kalimantan are work-in-progress stage and are expected to be commissioned in early to mid-2015.[12]

Table 4 shows KLK's FFB and CPO production figures in the fiscal year that ended at the end of September 2014.

Table 4 KLK's FFB and CPO production in FY 2014

Production indicator	Unit	Quantity	% of FFB processed
FFB production own estates	1,000 mt	3,734	79
FFB production sold	1,000 mt	-40	-1
FFB production purchased	1,000 mt	1,052	22
Total FFB production processed	**1,000 mt**	**4,746**	**100**
FFB yield per mature hectare	mt/ha	22.39	
CPO production	**1,000 mt**	**1,044**	
CPO yield per mature hectare	mt/ha	4.93	
Oil extraction rate (OER)	%	22.0%	

Source: Kuala Lumpur Kepong, "Annual Report 2014", p. 15, 27.

Table 4 shows that KLK in 2014 processed 4.7 million tons of FFB, of which 78% was sourced from its own plantations. External suppliers delivered 1.1 million tons of FFB. The oil extraction rate of its CPO mills amounted to 22.0% in 2014, resulting in a CPO production of 1,044,000 tons.[13]
Additionally, KLK's CPO mills yielded an estimated 289,500 tons of palm kernels.[14] After crushing in its own three crushing mills in Belitung (Indonesia), Riau (Indonesia) and Sabah (Malaysia)[15], or in external crushing mills, these would yield an estimated 124,400 tons of palm kernel oil.[16]

1.4 Palm oil refineries

Until recently, KLK operated two refineries in Malaysia with a total capacity of 1,900 tons per day. In the

past two years KLK has aggressively expanded its refining capacity in Indonesia by building three refineries with a total capacity of 3,600 tons per day in Belitung and Riau. Another refinery is to be built in East Kalimantan in a joint venture with IJM Plantations.[17] Table 5 gives an overview of KLK's palm oil refineries.

Table 5 Palm oil refineries of KLK

Country	State/province	Company	Operational since	Capacity (tons)	
				per day	per year
Malaysia	Johor	KL-Kepong Edible Oils	1985		
	Sabah	KLK Premier Oils	1998		
Malaysia	**Total**			**1,900**	**650,000**
Indonesia	Belitung	Steelindo Wahana Perkasa	April 2013	1,000	
	Riau		November 2013	600	
	Riau, Dumai		August 2014	2,000	
	East Kalimantan		?	?	
Indonesia	**Total**			**3,600**	**1,300,000**
Total					**1,950,000**

Sources: KLK, "Investor Presentation ASEAN Conference, Credit Suisse", http://bit.ly/1oncb2a, 10 – 11 January 2013; Kuala Lumpur Kepong Berhad, "Annual Report 2013", December 2013, p. 27, 117-118, 147-148; Kuala Lumpur Kepong Berhad, "Annual Report 2014", December 2014, p. 27, 144, 155-157; RHB Research, "Kuala Lumpur Kepong - Decent Growth But Rich Valuations", 6 June 2014, http://bit.ly/1u5sK8q; AM Research, "KL Kepong", 17 April 2014, http://bit.ly/WVT7mD; PlatMerahPuti, "Pabrik Refinery PT Steelindo Resmi Dioperasikan", 21 March 2014 www.platmerahputih.com/?p=1236.

KLK's expansion with 3,600 tons per day refining capacity in Indonesia equals an increase in processing capacity of 1.3 million tons of CPO per year. Together with KLK's Malaysian refineries, the company's annual refining capacity is now around 1.95 million tons of CPO per year. At this moment KLK's first two Indonesian refineries are still operating at 50% of their utilisation rate[18] and the third refinery has only recently come on stream. Based on these figures, we estimate that KLK refined 1.1 million tons of CPO in FY 2014.

When KLK's Indonesian refineries will be fully operational, its refining capacity (1.95 million tons/year) will go far beyond KLK's annual CPO production (1.04 million tons, see Table 4). The refineries' need for CPO from external sources is actually even higher than this gap suggests, as many of KLK's plantations and CPO mills are not located in close proximity to its refineries. In 2013, it was therefore estimated that KLK only sells about 5 to 10% of its own CPO production to its downstream operations, while most of its production is sold to domestic external refineries.[19] As a consequence, KLK's refineries have to source most of their CPO and crude PKO needs from external suppliers.

The limited vertical integration between KLK's plantations and its refineries is confirmed by an analysis of the revenue streams of KLK's Plantation segment, which includes its refineries. Sales of this segment amounted to RM 5,635 million in 2014, of which about RM 5 billion can be attributed to crude and refined palm oil (see Table 6). This equals total sales of about 2.0 million tons of crude and refined palm oil combined.[20]

Since KLK produced 1.04 tons of CPO and we estimate that KLK's refineries refined 1.10 million tons of CPO, this would add up to 2.14 million tons of crude and refined palm oil. This figure is slightly higher than the total sales volume of 2.0 million tons calculated above. The difference is due to internal CPO sales to the KLK refineries. Taking refining losses into account, this leads to the conclusion that only 100,000 tons of KLK's own CPO production is sold to its refineries. As a consequence, its refineries needed to source 1.0 million tons of CPO (91% of their total sourcing needs) from external suppliers in FY2014. Little information is available on which companies supply crude palm oil to KLK's refineries (see section 2.9).

Table 6 Revenue streams of KLK's Plantation segment in 2014

Revenue stream	Tons (000)	Revenue/ton	Revenues	
			RM (000)	%
CPO production	*1,044*	*2,396*	*2,501,518*	*44.4%*
minus Internal CPO sales	*100*	*2,396*	*239,600*	*4.3%*
External CPO sales	944	2,396	2,261,918	40.1%
Palm kernels*	145	1,576	228,113	4.0%
Palm kernel oil	62	3,294	205,015	3.6%
Palm kernel cake	80	430	34,231	0.6%
Rubber	18	7,974	145,158	2.6%
Refined palm oil	1,096	2,519	2,760,622	49.0%
Total revenues Plantation segment			**5,635,057**	**100%**

* Palm kernels are assumed to be sold directly (50%) and crushed into palm kernel oil and cake (50%).
Sources: Kuala Lumpur Kepong, "Annual Report 2014", December 2014, p. 13, 15-16, 27-28, 131; CRR calculations.

Table 6 shows that external CPO sales account for 40% of the revenues of the Plantation segment, palm kernels for 8%, rubber for 3% and refined palm oil for 49%. As shown in Table 1, the Plantation segment as a whole accounts for 51% of KLK's total sales and 77% of its profits. These profits are generated especially by the palm oil plantations and CPO mills, which account for 76% of KLK's total pre-tax profits.

KLK is aiming to increase internal supplies and expects to supply about 60% of the CPO feedstock required for its new Indonesian refineries from its own Indonesian plantations, with the rest coming from external sources.[21] When all refineries operate on full capacity, this would equal 780,000 tons of CPO per year – the fact that this is substantially more than KLK's present CPO production in Indonesia calls into question if this goal is realistic.

1.5 Oleochemical plants

KLK's oleochemical operations produce soap, biodiesel and various organic chemicals used by producers of detergents, chemicals, household care products and food products. These products are produced from palm oil, palm kernel oil and other vegetable oils. In FY2014, KLK operated six oleochemical plants in Malaysia, two in China and three in Europe. At the start of FY2014, the total capacity of the plants comprised 1.6 million tons per year.[22] Total output in FY2014 is estimated to be 1.3 million tons.

0 shows KLK's oleochemical plants, their locations and products. Most plants are fully owned by KLK. For the four plants which are 80% owned, the remaining shares are held by the Japanese companies Mitsui

& Co., Miyoshi Oil & Fat Co. and Asahi Denka Kyogo.[23] In January 2015, Mitsui also took a 20%-share in Taiko Palm-Oleo.[24]

A new plant is being built in Dumai (Riau), with a capacity of 165,000 tons of fatty acids per year and the capacity of the German plant will be expanded with 100,000 tons per year. In August 2014, the company announced the acquisition of the Belgium surfactants supplier TensaChem for an amount of EUR 16 million.[25] By the end of 2014 KLK's oleochemical capacity was about 2.2 million tons per year.[26]

Table 7 KLK: Oleochemical plants of KLK

Oleochemical plant	Location	Ownership	Manufactured products
Palm-Oleo	Rawang, Malaysia	80%	Fatty Acids and Glycerine
KSP Manufacturing	Rawang, Malaysia	80%	Soap Noodles
Palmamide	Rawang, Malaysia	80%	Fatty Acid Bis-Amides Alkanolamides
Palm-Oleo	Klang, Malaysia	80%	Fatty Acids and Glycerine Soap Noodles Fatty Esters
KL-Kepong Oleomas	Westport, Malaysia	96%	Fatty Alcohols Refined Glycerine Methyl Esters
KLK Bioenergy	Shah Alam, Malaysia	96%	Biodiesel
Davos Life Science	Malaysia	100%	Fatty acids Tocotrienol
KLK Dumai	Dumai, Indonesia	100%	Fatty Acids
Taiko Palm-Oleo	Zhangjiagang, China	80%	Fatty Acids and Glycerine Soap Noodles and Soap Bars Triacetin
Shanghai Jinshan Jingwei Chemical	Changhai, China	100%	Amines Dimethylacetamide Esters Anionic, cationic and amphoteric surfactants
KLK Emmerich	Emmerich, Germany	100%	Fatty Acids and Glycerine
Dr. W. Kolb	Hedingen, Switzerland	100%	Non-ionic surfactants and esters Alkoxylates
Dr. W. Kolb Netherlands	Moerdijk, Netherlands	100%	Non-ionic surfactants and esters Alkoxylates
TensaChem	Ougree, Belgium	100%	Surfactants

Sources: KLK, "Annual Report 2014", December 2014, p. 49, 124-125, 158; KLK Oleo, "Our group of companies", Website KLK Oleo (www.klkoleo.com.my/company/our-group-of-companies), Visited in January 2015; KLK, "Announcement to Bursa Malaysia: Proposed acquisition of shares in Tensachem SA", http://bit.ly/1tzMlOm, 11 August 2014.
KLK, "Announcement to Bursa Malaysia: proposed disposal of 20% equity interest in KLKPCL", http://bit.ly/1yA5iTN, 8 January 2015.

Only a small amount of the palm oil and palm kernel oil used by the oleochemical plants is from KLK's own plantations and refineries. In 2014, only 7.1% of the sales of its Plantation segment (which also includes its refineries) were sold to other parts of the KLK Group.[27] This equals about 160,000 tons of refined palm oil.

This means that with an estimated output of 1.3 million tons of oleochemical products per year, KLK is sourcing 1.14 million tons of refined palm oil, palm kernel oil and - to a limited extent - other vegetable oils from external suppliers. No information is available on which companies supply this huge volume of palm oil products to KLK's oleochemical plants. With the recent and planned expansion of KLK's oleochemical production capacity, this dependency on external suppliers is likely to increase further.

1.6 Marketing and customers

Buyers

The sales of KLK are diversified geographically. Table 8 shows that of KLK's total sales in FY2014, 24% came from East Asia, 23% in Europe, 19% in Malaysia, and 18% in South East Asia.[28]

Table 8 KLK's sales by destination, FY2013 and FY2014

Destination	2013 (%)	2014(%)
Malaysia	24	19
Europe	23	23
South East Asia	22	18
East Asia	15	24
North America	3	4
Other countries	13	12
Total	**100**	**100**

Source: Kuala Lumpur Kepong "Annual Report 2014" p. 133.

KLK's customer base is diversified; no customers represent more than 10 per cent of sales. Table 9 shows that major customers include trading companies such as Mitsui & Co., Mitsubishi (both from Japan) and Cargill (United States), chemical companies such as BASF (Germany) and major producers of food products, cleaning agents and personal care products such as Procter & Gamble (United States), Unilever (Netherlands) and Galaxy Surfactants (India). As most of these multinational companies have subsidiaries all over the world, KLK's supplies are not necessarily destined for the countries where their headquarters are located.

Table 9 Major customers of KLK in FY2014

Customer	Country of origin	Sales by KLK in FY 2014	
		RM million	%
Procter & Gamble	United States	266	2.4%
BASF	Germany	151	1.4%
Mitsui & Co.	Japan	128	1.2%
Unilever	Netherlands	80	0.7%
Galaxy Surfactants	India	74	0.7%
Mitsubishi	Japan	73	0.7%
Fuji Oil	Japan	30	0.3%
Cargill	United States	16	0.1%

Note: Most sales figures are minimum estimates based on available sources.
Sources: Kuala Lumpur Kepong "Annual Report 2014"; Panjiva (www.panjiva.com), Viewed in January 2015; Unilever, "Press release: Supplier summit reinforces commitment to developing and emerging markets", 27 June 2013; Malaysian Palm Oil Board, "Database on exports of palm oil products", Viewed in January 2015.

The companies mentioned in Table 9 do not necessarily process KLK's ingredients in final products themselves. Trading companies like Mitsui & Co., Mitsubishi (including its American subsidiary California Oils Corporation) and Cargill usually deliver the products they have procured from KLK to processing companies.

Suppliers

In August 2013, KLK entered into a joint venture agreement with the Indonesian palm oil company PT Astra Agro Lestari Tbk (Astra), in an effort to further penetrate international markets. Astra manages 281,000 ha of oil palm plantations in Indonesia.[29] The joint venture, incorporated in Singapore, is named Astra-KLK Pte Ltd. KLK has a 51% stake, while Astra has the remaining 49% stake.[30]

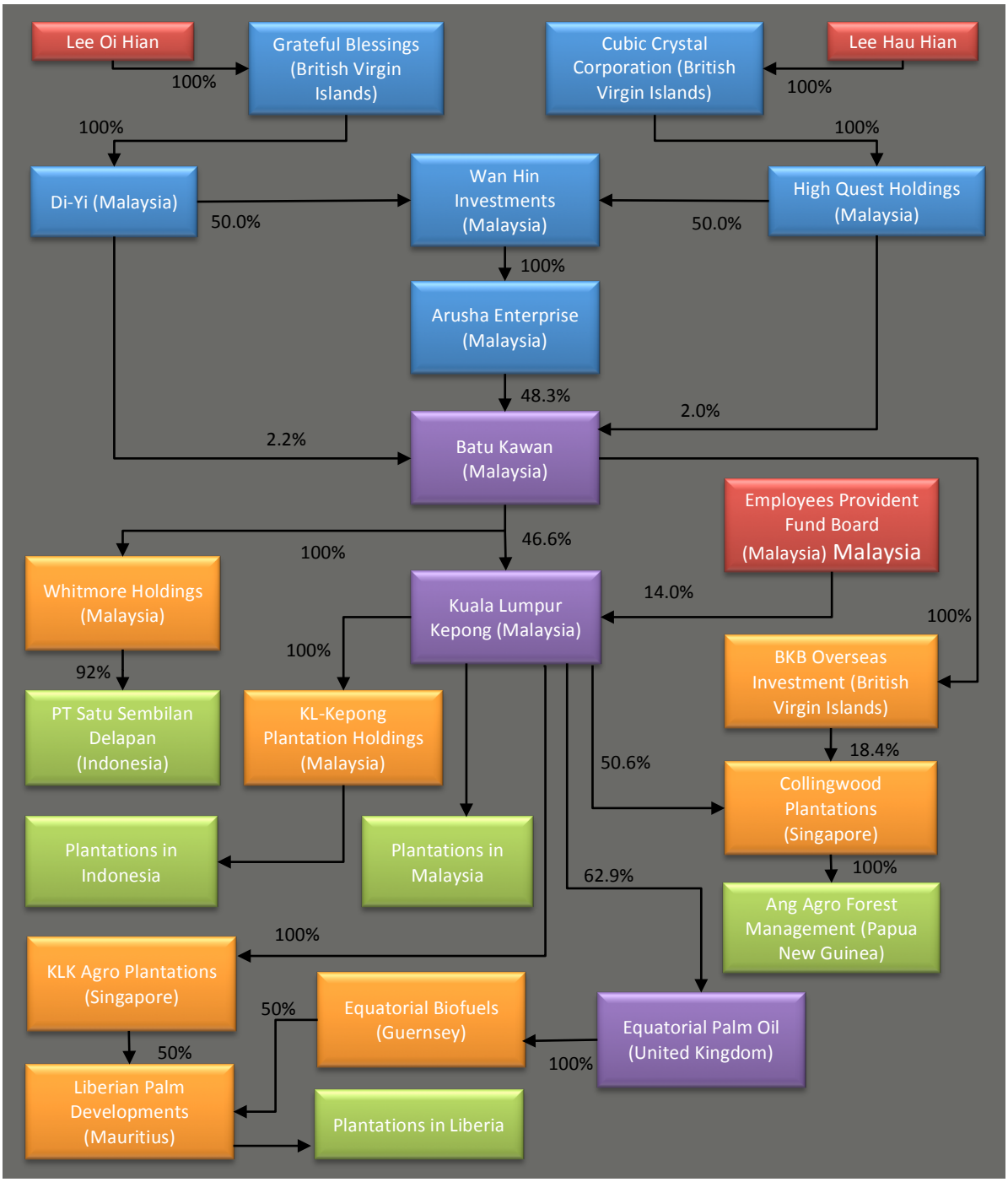
In January 2015, Wilmar disclosed most of its suppliers (on a palm oil mill level) that deliver to its refineries and oleochemical companies.[31] Soon after, Musim Mas also published a preliminary list of its CPO suppliers.[32] Table 10 below shows which palm oil mills of KLK delivered CPO and/or palm kernel to Wilmar and Musim Mas facilities in the first nine months of 2014. The amount of CPO and palm kernel and the value were not disclosed.

Table 10 KLK palm oil mils supplying to Wilmar and Musim Mas

Buyer	Supplying KLK mill	Province palm oil mill
Wilmar and Musim Mas	Langkat Nusantara Kepong	North Sumatra
Wilmar	Hutan Hijau Mas	East Kalimantan
Wilmar and Musim Mas	Adei Plantation and Industry	Riau
Wilmar and Musim Mas	Sekarbumi Alamlestari	Riau
Wilmar	Parit Sembada	Belitung
Wilmar	Hutan Hijau Mas	East Kalimantan

1.7 Ownership structure

Figure 3 KLK ownership structure and plantation subsidiaries



Notes: Red = shareholder; Blue = private holding company; Purple = listed company; Orange = holding subsidiary; Green = plantation subsidiary.

Sources: Batu Kawan Berhad, "Subsidiaries and Associates", *Website Batu Kawan Berhad (www.bkawan.com.my/img_subsi.html)*, viewed in January 2015; Kuala Lumpur Kepong, "Annual Report 2014", December 2014, p. 48, 162; Batu Kawan Berhad, "Annual Report 2014", December 2014; Batu Kawan, "Announcement Bursa Malaysia: Investment of 18% Equity Stake in Collingwood Plantations Pte Ltd", 22 May 2014; Equatorial Palm Oil, "Shareholder Analysis", *Website Equatorial Palm Oil (www.epoil.co.uk/shareholder-analysis.aspx)*, Viewed in January 2015; Equatorial Palm Oil, "Annual Report 2013", April 2014.

Figure 3 shows that the Lee family, through a number of holding companies in the British Virgin Islands and Malaysia, controls 52.5% of the shares of Batu Kawan. In turn, this company controls 46.6% of the shares of KLK. The company's second main shareholder is the Employees Provident Fund Board (Malaysia) with a 14.0% stake.

1.8 Main shareholders

1.8.1 Batu Kawan Berhad

The Batu Kawan Group is a diversified Malaysian conglomerate, controlled (with a 52.5% shareholding) by the brothers Lee Oi Hian and Lee Hau Hian.[33] The main holding company Batu Kawan Berhad was incorporated in 1965 and commenced operations as a plantation company when it took over the assets and liabilities of its predecessor company, Batu Kawan Rubber and Coconuts Plantations Ltd. in 1971 under a scheme of reconstruction. In 1992, Batu Kawan sold all its plantations assets to KLK Berhad in exchange for shares. Currently Batu Kawan owns a 46.6% equity stake in KLK.[34]

At present, Batu Kawan Berhad is involved in plantations through KLK, in the manufacture of chlor-alkali and sulphuric acid products and transportation through its subsidiaries, Malay-Sino Chemical Industries Sdn Bhd Group and See Sen Chemical Berhad, and in investment holding. Recently, the company became involved in renting out office space.[35] Batu Kawan Berhad is listed on the Bursa Malaysia.

According to Forbes in February 2014, the brothers Lee Oi Hian and Lee Hau Lian, the main owners of the Batu Kawan Group, ranked 18th on the list of richest people in Malaysia, owning a net wealth of USD 1.0 billion.[36]

1.8.2 Employees Provident Fund

The second main shareholder of KLK is the Employees Provident Fund (EPF), which controls 14.0% of the shares. The EPF is a social security institution formed in Malaysia and which provides retirement benefits for members through management of their savings. Its 13.95 million members include private and non-pensionable public sector employees. As of March 2014, EPF managed assets with a total value of RM 597.0 billion (USD 183.4 billion), invested in Malaysian government securities, money market instruments, loans and bonds, equity and property.[37]

2 Sustainability Risk Assessment

2.1 Introduction

We assessed the compliance of KLK's policies and practices against the most demanding ESG (*Environmental, Social and Governance*) standards for palm oil companies in the market place. The ESG standards are set in national laws and regulations, policies of forerunning companies (grower/trading companies, financiers and palm oil processing companies), and certification standards (RSPO).

The following sections elaborate on the sustainability risks KLK is facing on issues like deforestation, biodiversity, climate change, communities' and workers' rights, legal compliance and supply chain governance. As a summary of all land-related issues, section 2.8 calculates which parts of KLK's land bank are assessed as "contested land." Section 2.11 provides for an outlook on how the company will deal with its sustainability risks in the future.

2.2 Deforestation and biodiversity loss

2.2.1 KLK's Policy

KLK's policy on biodiversity is shortly described in its annual report 2013: "Preservation of high conservation areas within our plantations such as forest and riparian reserves, waterfalls, hot springs and eco-systems demonstrates our support for biodiversity."[38] This policy is largely in line with Principle 7.3 of the RSPO Principles & Criteria: "New plantings since November 2005 have not replaced primary forest or any area required to maintain or enhance one or more High Conservation Values."[39]

In September 2014 KLK also committed to not develop potential High Carbon Stock (HCS) areas with immediate effect.[40] In January 2015, it clarified that for the time being, this means the company will adopt the current industry HCS-standard developed by Golden Agri-Resources (GAR), The Forest Trust (TFT) and Greenpeace.[41] This standard defines High, Medium, Low Density and Regenerating Forests, and excludes oil palm plantings on these forest types.[42]

2.2.2 KLK's practice in Kalimantan

So far KLK has not put its new commitment to preserve HCS areas into practice and there is not much information available on what the company has done to preserve High Conservation Value (HCV) areas in Kalimantan. The consultancy firm Jump Consulting conducted a HCV assessment from January to February 2012 for all of KLK's subsidiaries. This assessment seems to conclude that there was no replacement of primary forest or any HCV area.[43] This study was never made public by KLK. Between 2006-2013, KLK deforested more than 24,000 ha within Central and East Kalimantan, according to satellite images.[44] Table 11 shows the areas and periods of deforestation per plantation.

Table 11 Deforestation by KLK in Central and East Kalimantan

Province	Plantation company	Deforested area (ha)	Period
East Kalimantan	PT Jabontara Eka Karsa	8,400	2006 - 2013
	PT Hutan Hijau Mas	7,300	2007 - 2013
	PT Malindomas Perkebunan	3,700	2007 - 2013
Central Kalimantan	PT Karya Makmur Abadi	3,100	2007 - 2013
	PT Menteng Jaya Sawit Perdana	1,300	2007 - 2013
	PT Mulia Agro Permai	600	2007 - 2013
Total		**24,400**	

Details on KLK's deforestation practices at individual plantation level are provided below:

- **PT Tekukur Indah (PT TI)**
  A recent example of planned deforestation comprises the plantation PT Tekukur Indah, which is owned by Batu Kawan and managed by KLK. The plantation comprises 2,888 ha and is located in the Berau regency of East Kalimantan. On 16 October 2014, a notification was put on the RSPO website with regard to a New Planting Procedure for this plantation. The HCV-assessor had identified several threatened and endangered species (proboscis monkey, gibbon, pangolin, otter, civet and flat-headed cat) and vulnerable species (Bornean slow loris, Malayan sun bear, marbled cat, small-clawed otter, smooth-coated otter and bearded pig) in the area. Nevertheless, only 130 ha were classified as HCV-area.[45] In contrast to its commitment from 19 September 2014 to immediately stop the development of High Carbon Stock (HCS) areas, KLK had not assessed HCS areas and aims to plant almost the entire area. Based on Landsat satellite imagery of 25 August 2014, the amount of forest in the area is estimated to be 800 ha.

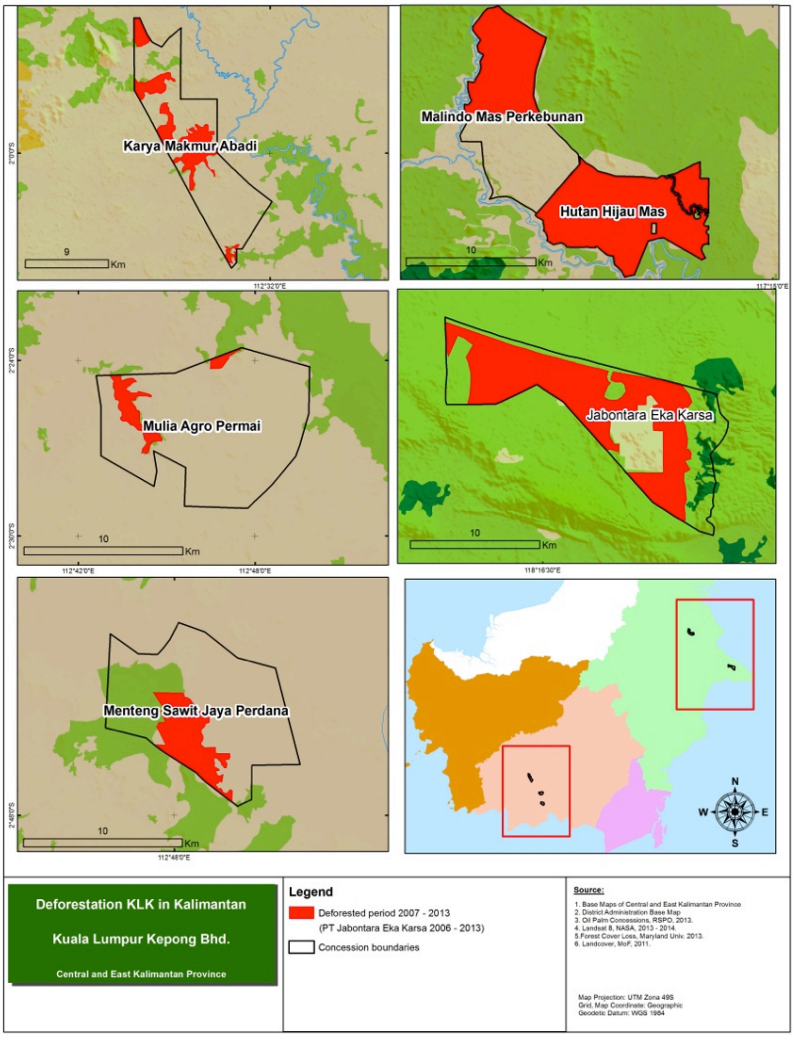
- **PT Karya Makur Abadi (PT KMA)**
  KLK acquired PT KMA in 2007.[46] PT KMA operates 13,148 ha in the East Kotawaringin regency of Central Kalimantan. A Greenpeace field observation in January and February 2014 documented active forest clearance in the immediate vicinity of mapped orangutan habitat.[47] We estimate that 3,100 ha were deforested between 2007-2013, of which 800 ha comprised potential or actual orangutan habitat.[48] KLK, in contrast, stated that the concession area comprised mainly thick bushes and scrubs, not primary forest. Its HCV report, which was not publicly disclosed, did not identify any orangutan habitat and there had been no sightings of orangutans.[49]

- **PT Menteng Jaya Sawit Perdana (PT MJSP)**
  KLK acquired PT MJSP in 2007.[50] The plantation company operates 5,893 ha in the East Kotawaringin regency of Central Kalimantan. In May 2011, the NGOs Environmental Investigation Agency (EIA) and Telapak visited the concession. They found areas that had been recently cleared, where commercially valuable tree species were being harvested. As the area is peat, canals had been dug to drain the land. Further into the plantation, EIA/Telapak found several excavators in the process of clearing forests.[51] KLK responded, stating that, "the study of High Conservation Value areas was commissioned to PT Jump Consulting whose report did not indicate sensitive HCV elements." This study was however never publicly disclosed. The company also stated that it had preserved 731 ha.

Nonetheless, KLK halted the clearing of about 70 ha by an "over-eager" contractor pending further verification due to lack of clarity.[52] Satellite images show that KLK has been deforesting 1,300 ha of potential or actual orangutan habitat[53] within the concession area of PT MSJP between 2007-2013.

- **PT Jabontara Eka Karsa (PT JEK)**
  PT JEK operates 14,000 ha in the Berau regency of East Kalimantan. According to mapping analysis by Greenpeace, PT JEK cleared up to 246 ha in 2013. Nearly 8,500 ha were cleared in the two previous years. A field investigation by Greenpeace in February 2014 documented recent forest clearance.[54] In its response, KLK did not deny the forest clearance. However, it stated that the previous owner had already cleared close to 4,000 ha of land from 1995-1997, and that KLK had allocated approximately 4,600 ha for conservation.[55] With the total plantation being over 14,000 ha, this would mean the maximum deforestation by KLK was 5,400 ha, according to KLK's response. However, KLK has not published its areas of conservation within concession areas. Based on satellite imagery, we estimate the forest clearance to be 8,400 ha from 2006-2013, and the remaining forest to be 3,400 ha.

Figure 4 Deforestation 2007-2013 by KLK in Kalimantan



2.3 Impact on climate change

Like most palm oil companies, KLK does not disclose its greenhouse gas emissions. The main issues to consider in assessing KLK's climate impact include the development of peatland, the management of palm oil mill effluent (POME), and fire frequencies due to land clearing and drainage of peatland.

2.3.1 Development of peatland

With regard to the development of peatland, KLK had no clear policy until recently. In July 2014 the company, together with six other growers and planters, signed on to the so-called Sustainable Oil Palm Manifesto (from here: Manifesto), which ruled out any plantation development on peatland, regardless of depth.[56] This is in line with Principle 7.4 of the 2013 RSPO Principles & Criteria, which states on new plantings: "Extensive planting on steep terrain, and/or marginal and fragile soils, including peat, is avoided."[57]

Between 2007-2013, KLK developed peatland in the Central Kalimantan plantations of PT Menteng Jaya Sawit Perdana and PT Mulia Agro Permai. Table 12 shows that the total cultivation of oil palm trees on peatland by KLK amounts to 17,500 ha.[58]

Table 12 Oil palm cultivation on peatland by KLK

Plantation company	Province	Ha	Period
PT Mulia Agro Permai	Central Kalimantan	6,100	2007 - 2013
PT Menteng Jaya Sawit Perdana	Central Kalimantan	3,000	2007 - 2013
PT Safari Riau (associated company)	Riau, Sumatra	8,400	Before 2007
Total		**17,500**	

In the Manifesto KLK has (again) committed to applying the Best Management Practices of the RSPO in existing plantations on peatland. Additionally, in areas that are found to be unsuitable for replanting, plans will be made to rehabilitate them for alternative uses.[59]

The oxidation process of peatland as a result of drainage leads to yearly emissions of 35 to over 80 tons of CO_2 per hectare (depending on peat type, drainage depth, soil temperature and other factors). Minimization of drainage is important to reduce GHG emissions. However, even with an optimal drainage of 40-60 cm in the field, oil palm plantations will still have a significant carbon footprint of about 60 tons of CO_2 per ha per year.[60] This means that KLK's emissions through the cultivation of peatland (excluded N_2O-emissions) totalled 1.1 million tons of CO_2 yearly for the 17,500 ha. This is equivalent to the annual CO_2-emissions of 450,000 cars in Europe.[61]

2.3.2 Management of Palm Oil Mill Effluent

As of September 2014, KLK had 25 palm oil mills.[62] In its 2014 Annual Report, the company mentions the introduction of a system which intakes the bottom slurry solids from the effluent ponds and lets the slurry solids go through multiple dewatering stages, which reduces the formation of methane gas. The company stated that it is in the process of rolling out a company wide the installation of this "filter belt-press" system.[63] KLK does not reveal how many greenhouse gas emissions would be saved through this system. Of the 25 palm oil mills, three have a biogas plant that captures the methane from palm oil mill

effluent and utilizes it as a power generator. The plants are located in Sabah, Belitung Island and Riau.[64] In its 2014 Annual Report, KLK mentions that three extra units are under planning, two in Peninsular Malaysia and one in East Kalimantan.[65] This would set the total at 6 out of 25 palm oil mills.

2.3.3 Fires

The establishment of an oil palm plantation on peatlands is often accompanied by an increase of fire frequencies. Disturbed peatlands are fire-prone because of the build-up of dry, flammable fuels (through drainage), as well as lower humidity resulting from a reduced tree canopy.[66] Additionally, the use of fire for land clearing also causes greenhouse emissions and air pollution. On the latter, KLK stated in June 2011: "KLK has long abandoned using fire to clear land for new planting or replanting. Our policy and practice is ZERO burning for such activities."[67] After its subsidiary PT Adei was accused in June 2013 of contributing to the forest fires in Sumatra and the subsequent haze in Singapore, the company reiterated this zero-burning policy.[68]

However, in July 2013, the Indonesian National Police announced that they were set to slap charges on KLK's subsidiary PT Adei in Riau province, Sumatra. "The company is responsible for the fire and has been declared a suspect, but we have not determined the company's employees who were responsible for the burning," said National Police spokesperson Insp. Gen. Ronny F. Sompie. The spokesman also said that the police had detected several hotspots in areas controlled by five companies, but had only gained enough evidence on PT Adei's involvement for its use of illegal slash-and-burn methods to clear land for cultivation.[69]

In October 2013, two Malaysian managers of PT Adei received a travel ban.[70] In December 2013, one of them was arrested, with the second arrested soon thereafter.[71] In February 2014 the trial at the Pelalawan District Court started.[72] Later, a third employee of PT Adei was added to the case. The accusations comprised not only the fires, but also the managing of 541 ha smallholder plantation land without a plantation business permit (IUP).[73] According to the Pelalawan office of the National Land Agency the fires covered 40.5 ha within the smallholder area managed by PT Adei. Witnesses stated that the fire lasted from 17 until 19 June 2013.[74]

On 24 July 2014, the three managers were acquitted from the offense of operating without an IUP. The judge ruled that the defendants, accused as citizens, were not subjects to the law as stipulated in the Plantation Act.[75] The Public Prosecutor has since appealed this decision.[76] On 9 September 2014, the presiding judge ruled on the fires. PT Adei was fined as a corporation IDR 1.5 billion and ordered to pay IDR 15 billion (around USD 1.2 million) for recovery of the environmental damage caused by the fire near the village Batang Nilo Kecil. The General Manager of PT Adei, KR Danesuvaran Singham, was sentenced to one year in prison and a fine of IDR 2 billion (around USD 170,000), subsidiary of two months in prison. The public prosecutor will appeal to the Supreme Court, earlier demanding a sentence of five years in prison and an IDR 5 billion fine for the general manager.[77]

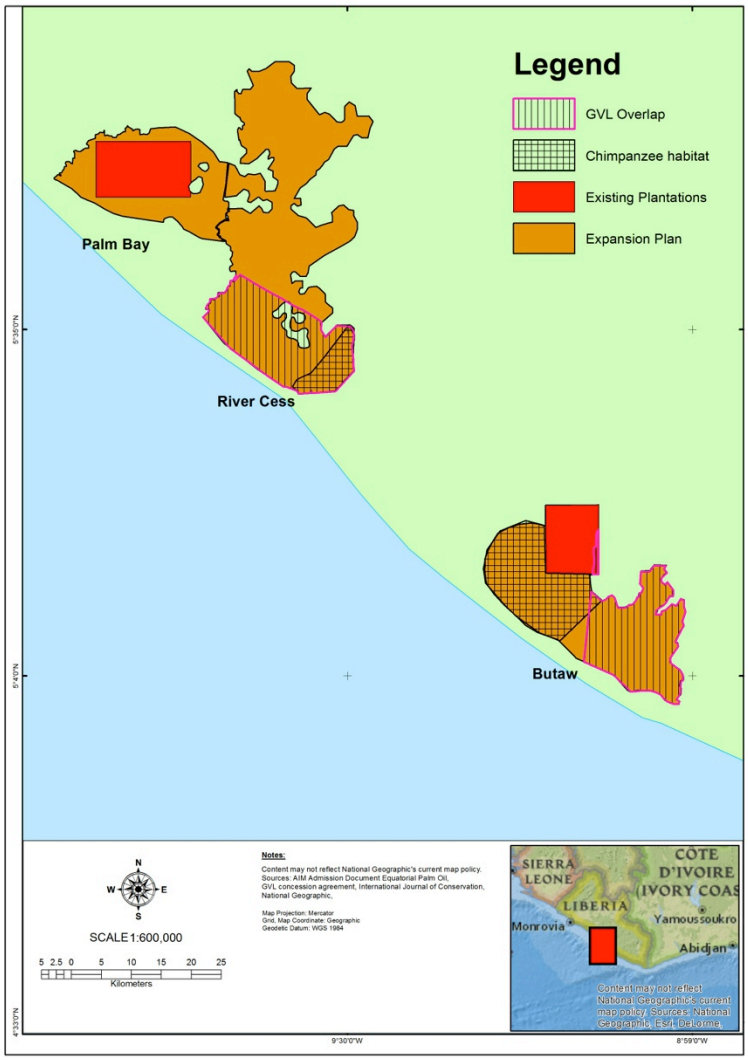
2.4 Expansion plans in Liberia

In 2013, KLK took a majority stake in the Liberian oil palm development plans of Equatorial Palm Oil Plc (EPO). KLK currently has an effective interest of 81.6% in the formed joint venture company Liberian Palm Developments Ltd (LPD), under which all plantations and expansion plans reside. EPO has the remaining shares. In April 2014, KLK entered into a joint venture agreement with EPO. According to the joint venture agreement, LPD will receive up to USD 35.5 million in cash and funding commitments from

KLK, which will be the operator of the joint venture.[78]

KLK's short-term plans in Liberia focus on 22,000 ha within the Palm Bay and Butaw areas.[79] In addition, the company has expansion plans totalling 147,000 ha. Altogether, KLK is targeting 169,000 ha of Liberian land (see Figure 5). In March 2014, KLK put its long-term planting target for Liberia at 145,000 ha.[80] This amount of 145,000 ha is in sharp contrast with our assessment of KLK's potential in Liberia. We estimate that KLK will be able to operate only 14,000 ha of oil palm plantations. The 2014 Ebola outbreak significantly hampered KLK's opportunities in the region.

Figure 5 KLK's (planned) operations in Liberia



2.4.1 Short-term plans in Liberia

In 2008, the Government of Liberia approved a 13,961 ha concession for Palm Bay.[81] This was later revised to 13,007 ha. Some of this area was already planted with oil palm trees, but was abandoned. On 8 December 2014, EPO put a New Planting Procedure on the RSPO website for public consultation.[82] A new planting area of 1,570 ha was defined, while the replanting area was set at 6.258 ha. This means that the oil palm plantation will be 7,800 ha.

The Government of Liberia has in 2008 approved on concessions of 8,011 ha in Butaw.[83] Of this area 4,600 ha was already planted.[84] On the basis of possibilities at Butaw and the fierce resistance against palm oil at the remainder of the Palm Bay concession, we estimate that KLK will be able to operate 14,000 ha of oil palm plantations.

Within the Palm Bay concession in Liberia EPO has met resistance, especially from the Jogbahn Clan within Grand Bassa District #4. Communities have accused EPO of taking their land and clearing it without their consent. It is also said that community members were beaten and detained by EPO security staff and the Liberian police on their way to lodge a complaint to authorities in September 2013.[85] In response to a press release by several NGOs, EPO denied all allegations. The company stated that it adheres strictly to the procedures of *Free, Prior and Informed Consent (FPIC)* procedures.[86] In October 2013, the NGOs Sustainable Development Institute and Friends of the Earth Liberia filed a RSPO complaint against Equatorial Palm Oil Plc.[87] The RSPO Secretariat visited the community of the Jogbahn clan in Blayah Town on 21 June 2014 to hear their views. The clan presented all the crops they produced on their land to the RSPO delegation.[88] Since the visit of the RSPO, the webpage on the RSPO complaint has no news.[89]

The Jogbahn Clan, supported by NGOs like Friends of the Earth and Global Witness, want to secure their land. In May 2014, Friends of the Earth started a petition action against EPO, because of the company's attempt to conduct Environmental Social Impact Assessments and High Conservation Value Assessments on the land of the clan, within the concession area of 13,961 ha. As these are requirements before land clearing begins, this implies that EPO is not respecting the communities' right to reject the plans, according to the community and NGOs.[90] EPO claimed at the beginning of June 2014 that it is presently operating within the vicinity of consenting communities and conducting HCV surveys and free prior informed consent analysis.[91] On 24 June 2014, the Jogbahn Clan, together with representatives from Liberian and international NGOs, delivered EPO the petition with over 90,000 signatures.[92]

2.4.2 Long-term plans in Liberia

KLK's plans to expand on to 147,000 ha are seen as contestable for several reasons:

- In its New Planting Procedure notification from 8 December 2014, EPO claims that the government allows development of an additional 20,234 ha at Palm Bay after the completion of development in the existing concession area. Of this area, 50% needs to be used for an out-growers' scheme.[93] Considering the resistance there is and was by communities at the Palm Bay concession, this will be no easy task for EPO.

- The expansions plans for Palm Bay and Butaw (together 67,000 ha) and the development plans in River Cess (80,000) are in a preliminary state. There is no government approval. In November 2013 KLK described the development plans in River Cess as follows: "A further 61,111 ha is earmarked for future expansion with the local community under a proposed training and Out-grower programme. The expansion of the plantation will be subject, amongst others, to the ability of LPD to obtain financing from local Liberian financial institutions."[94] In April 2014, EPO announced: "Detailed business plans have been submitted to the National Investment Commission of Liberia whereby a Joint Ministerial Committee will be formed by the Liberian Government in order to draw up a concession agreement."[95] It is unclear whether KLK has created a plan with serious social considerations and involvement of smallholders.

- A concession of Golden Veroleum (GVL, a subsidiary of Golden Agri-Resources) largely overlaps with the east side of the Butaw estate. The overlap comprises around 23,000 ha. The River Cess development plans of EPO encounter a large overlap of 33,000 ha in the south of the area with plans of GVL (see Figure 5).[96]
- The West African chimpanzee (*Pan troglodytes verus*) is an endangered species listed on the IUCN Red List of Threatened Species.[97] With more than 7,000 chimpanzees, Liberia is home to the second largest population of West African chimpanzees. In the years 2010-2012, a research team investigated the chimpanzee density within the entire country of Liberia, concluding that around 5,000 of the 7,000 chimpanzees in Liberia live in unprotected areas. Whenever KLK conducts serious High Conservation Value (HCV) studies, the RSPO Principles & Criteria prescribe that areas with chimpanzee's presence are no-go areas for oil palm plantations. According to the study, populations of chimpanzees can be found in the South side of KLK's River Cess plans and the West side of the Butaw concession. The total area where chimpanzees can be found (between 2 and 4 species per 5 square kilometres), comprises more than 35,000 ha (see Figure 5).[98]
- The planned River Cess development area contains large tracks of forests, especially in the Southeast part. Most of the Butaw area (especially the Western and Central part) is forested.[99] Since KLK has committed to preserve High Carbon Stock areas, large areas will be excluded from oil palm development. The Cestos-Sehnkwehn proposed protected area largely overlaps with the West part of the Butaw concession.[100]
- Last but not least, KLK will have to obtain *Free, Prior and Informed Consent (FPIC)* from communities. The company's approach of communities has so far not been successful.

2.5 Expansion plans in Papua New Guinea

In 2012, KLK acquired a 51% stake in Ang Agro Forest Management, a company in Papua New Guinea that claimed to have access to 44,000 ha. KLK's parent company Batu Kawan acquired another 18%. The area in question is the Collingwood Bay region, a pristine primary forest area containing extremely high levels of biodiversity. In its 2013 annual report KLK estimated that it could plant 30,000 ha oil palm trees within the area.[101]

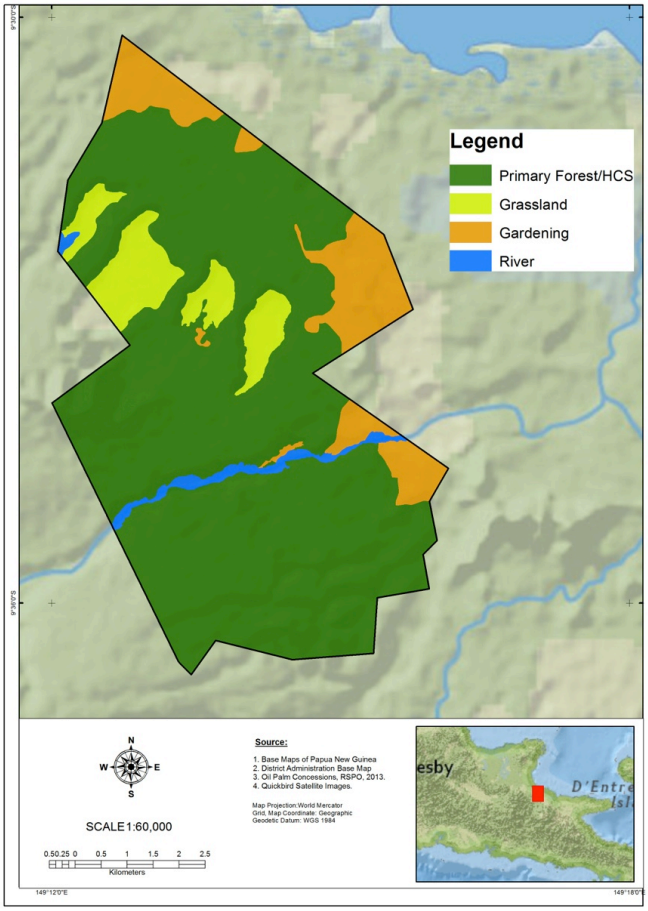
KLK claimed it had legitimate land titles through local companies. Community representatives had already voted against palm oil plantations in 2010,[102] and proceeded to court. In addition, an RSPO-complaint was filed in April 2013.[103] In early November 2013, while KLK was aware of on-going court proceedings and the RSPO-complaint, a tugboat arrived on the shores of Collingwood Bay and offloaded nursery and land clearing equipment in the community. Soon after, KLK staff entered Collingwood Bay in attempts to obtain the consent of the communities. Early January 2014, the RSPO requested that KLK stop all activities on the ground, await the court decision and to demonstrate that the Free Prior and Informed Consent (FPIC) process involved the whole community.[104] In May 2014, the National Court of Papua New Guinea ruled that KLK's land titles were null and void.[105] Both KLK and Batu Kawan formally recognized the Court's ruling,[106] which specifically referred to 38,000 ha of customary rights land.

KLK and its partners are still pursuing the development of 6,000 ha State lease of the original claimed land bank of 44,000 ha. On 5 August 2014, the RSPO Complaints Panel wrote a letter to KLK: "However, we are rather concerned with your statement that Portion 5 remains unaffected by the court orders, therefore we ask that KLK clarifies this statement. Our main concern is that any development of this Portion 5 should be done in compliance of all the RSPO Principles and Criteria to avert any potential of a conflict."[107] KLK replied by stating that its rights to the 6,000 ha are legitimate and that its activities will be in line with the RSPO Principles & Criteria. The RSPO Complaint Panel then told the plaintiffs that KLK

is not in violation of the RSPO rules at this point in time.[108]

However, development of Portion 5 is very problematic for KLK. First, the area is isolated and cannot be reached without accessing customary rights land. Second, over 80% of Portion 5 is primary forest, thus it is not available for planting under RSPO guidelines (see Figure 6). Third, over 80% of Portion 5 is High Carbon Stock forest, thus it is also not available for planting under the Manifesto that KLK has signed. Finally, the potential planting area of Portion 5 is not considered economically viable.[109] Should KLK pursue to develop this land, the company would put its membership in RSPO at risk and it likely would not be able to proceed with its commitment to the Manifesto. Moreover, the company also risks serious reputational damage from developing in the region since this case is followed by many NGOs, such as the US-based Rainforest Action Network[110] and the Malaysian group Friends of the Orangutans.[111]

Figure 6 Land cover of KLK's 6,000 ha lease in Papua New Guinea



2.6 Social issues in Indonesia

2.6.1 Disputes with communities

KLK has acknowledged that it has a land dispute with communities within its claimed land bank of PT Adei in the area of the Mandau POM, Riau province. The dispute concerns an area of 2,500 ha.[112]

PT Adei, in the area of the Nilo 1 and 2 POMs (also Riau province), has a dispute with citizens of five

surrounding villages: Kemang, Palas, Sering, Telayap and Batang Nilo Kecil. Demonstrations by villagers have been going on since the beginning of 2013. The conflict was about land rights, as well as the destruction of beehives and the access road by the company.[113] There have been mediation attempts, but to no avail.[114] During a hearing with the local parliament in the beginning of 2015, the communities demanded the return of 2,800 ha to the community.[115]

In the harbour city of Dumai (Riau province), KLK's new refinery and/or oleochemical factory have raised many concerns from local communities. In August and September 2014, citizens asked for the plants to be closed. The roaring and screeching of the machinery disturbed local communities, reaching almost one kilometre wide. There are also concerns about local air and water pollution.[116]

2.6.2 Working conditions

A 2010 report by NGO Sawit Watch described slavery-like working conditions within the plantation of PT Satu Sembilan Delapan.[117] KLK has admitted that a contractor working for PT Satu Sembilan Delapan used under-aged persons and illegally withheld wages of its workers. This started in 2007 and the contract was terminated in September 2010 after KLK heard about the practices. All wages were later paid, according to KLK. The company stated in April 2014 that the owner of the contractor, Mr. Handoyo, remained blacklisted in KLK's record.[118] However, NGO Sawit Watch reported that in 2013, several labourers were still being recruited by Handoyo to work for KLK.[119]

In 2012, Sawit Watch conducted investigations on a KLK plantation in East Kalimantan. The interviews included a 14-year old boy who reported working seven days a week with no days off since he was 12 years old. The boy claimed he had been provided with a fake ID card that said he was 19 years old. In July 2013, Sawit Watch conducted a visit to two KLK plantations in East Kalimantan and found many child labourers, three of whom they were able to interview. The children had no contracts with the contractors who recruited them or the company. The contractors held their fake IDs and important documents, including diplomas, to ensure they could not leave the plantation.[120] In its response in April 2014 to a report by Rainforest Action Network, KLK did not address the findings of Sawit Watch.[121]

On the use of child labour, KLK stated in April 2014 that as an estate starts to mature, the company directly hires its workers for jobs like harvesting, manuring, weeding and pruning. By not depending on third party labour contractors, it is able to control and ensure that all of its workers are of legitimate age, based on the identification produced during recruitment, according to KLK. In hiring, all regional directors, general managers and managers of estates are guided and reminded via internal policy circulars to ensure that no underage labourers are employed in its estates.[122] In its new Sustainability Policy from December 2014, KLK takes a firm stance against child labour at its own plantations and at its suppliers and contractors.[123] However, some issues still remain unresolved.

In April 2014, manpower officials of the Pelalawan district of Riau province found that PT Safari Riau had violated labour laws. In July 2011, the company advised its employees to involve their wives in the harvesting of oil palm fruits. The company had not kept its promise to provide the women the minimum wage in the district. The wives of the employees, 109 in total, worked until May 2013. The total wage deficiency amounted to IDR 1.4 billion. The company later promised to pay the entire underpayment of wages.[124]

In 2011 and 2012, hundreds of temporary workers of PT Langkat Nusantara Kepong (LNK) conducted demonstrations and strikes. The workers demanded that their status be raised from casual to

permanent workers. Some had reportedly worked for the company already for up to 13 years.[125] In October 2013, the Indonesian Hutan Rakyat Institute published a report about the labour rights practices within three oil palm plantations, including LNK. The institute interviewed several workers, and found that LNK was not adhering to three RSPO standards. First, criterion 6.5, no decent living wages were paid. Also, there was no documentation on the wages of day labourers, which were paid through contractors. Second, criterion 6.6, the company did not respect the right of all personnel to form and join trade unions of their choice and to bargain collectively. Instead, a union member was threatened to be laid-off if he attempted to organize. Third, criterion 6.9, chemicals were sprayed mostly by day-labour women that were not equipped with adequate working tools.[126]

2.6.3 Smallholders

In contrast to other main grower companies such as Wilmar, Golden Agri-Resources, First Resources, Indofood Resources and Bumitama Agri,[127] KLK does not publish how much of its total planted area in Indonesia is allocated to smallholders. Therefore, it is not clear to what extent KLK is living up with the Indonesian Ministerial regulations 26/2007 and 98/2013 on inclusion of smallholders.[128] As of 30 September 2014, KLK's oil palm planted area in Indonesia comprised 104,300 ha.[129] This means that with the rule being 20%, approximately 21,000 ha should have been allocated to smallholders in Indonesia.

In December 2014, KLK was in the process of establishing 8,472 ha oil palm plantations for smallholders in East Kalimantan.[130] In Riau, surrounding the Nilo 1 and 2 POMs, KLK is also known to have several partnerships with smallholders for an estimated 4,500 ha (the exact amount could not be retrieved).[131] PT Sekarbumi Alamlestari has a smallholder partnership of 1,050 ha.[132] Further smallholder partnerships could not be tracked down. All in all, it appears that KLK is not operating far from the goals set by the state government of Indonesia.

2.7 Legal compliance: forestland occupation

In Indonesia, the management of the forestland estate falls under the statutory jurisdiction of the Ministry of Forestry. The Indonesian Forestry Act Nr. 41/1999 prohibits any person to access forestland without prior permission of the Ministry. Since decentralization was introduced in 1999-2001, the Ministry's exclusive claim over the forestland estate has been both ignored and challenged by local authorities who issued hundreds of permits to oil palm plantation companies, overlapping with millions of ha of forestland. Government Regulation No. 60/2012 of 6 July 2012 strives to address this problem that comes at a great expense to state revenue.[133] Plantation companies holding an oil palm license over forestland categorized as Production Forest (HP) and Limited Production Forest (HPT) were offered a one-time opportunity to apply for the acquisition of compensation land until 6 January 2013 in exchange for any forestland opened up. Companies with clearings or plantings in Convertible Production Forest (HPK) need not offer compensation land, but may be issued forestland release permits if all requirements are complied with.

Table 13 shows for which areas of occupied forestland KLK has applied for a forestland release, and for which areas it has not.

Table 13 KLK's land bank within forestland estate

Concession Name	Province	Applied for GR60/2012		Not applied for GR60/2012	
		HP + HPT (ha)	HPK (ha)	HP + HPT (ha)	HPK (ha)
PT Steelindo Wahana Perkasa	Bangka Belitung	??	??		
PT Menteng Jaya Sawit Perdana	Central Kalimantan	5,800	1,500		
PT Mulia Agro Permai	Central Kalimantan		8,900		
PT Karya Makmur Abadi	Central Kalimantan		5,500		
PT Jabontara Eka Karsa	East Kalimantan			4,700	
PT Sekarbumi Alamlestari 2	Riau			1,700	
Total		**5,800**	**15,900**	**6,400**	**0**
			21,700		**6,400**

Source: Ministry of Forestry, "Application for forest release permit with regard to PP 60/2012", http://bit.ly/1mIFZb0, 4 October 2013. Land Use Designation maps, Ministry of Forestry

Based on the most recent Ministry of Forestry's Land Use Designation maps for West Kalimantan, Central Kalimantan and Riau province, we have identified five majority-owned KLK subsidiaries, whose concessions overlap with a total of 28,100 ha of forestland estate.[134] The group submitted only three applications for plantations within Kalimantan under GR60/2012, covering 21,700 ha of forestland estate (Table 13).[135] KLK also applied for the acquisition of compensation land for the forestland opened up within the plantation of PT Steelindo Wahana Perkasa in Belitung. Due to a lack of publicly available concession maps, the amount of designated forestland opened up could not be determined for this plantation.

GR 60/2012 requires the group to identify, acquire and restore uncontested land bank in Kalimantan, equal to its occupied land area of HP and HPT. Assuming that KLK's applications are processed, the group would have to acquire and reforest 5,800 ha of land in the "Other Land Use" (APL) category and return this land to the State.

Any remaining forestland within the concessions that had not been developed as of 6 July 2012 is not eligible for compensation and would revert back to the State, just like any that was occupied after the deadline of 6 January 2013 or any forestland for which no appropriate applications were submitted. Based on the regulations, KLK would thus lose access to a land bank of at least 6,400 ha, and it could be charged under forestry laws for illegal encroachment into these forest reserves.

2.8 Contested land

For ESG-issues that are solely land-related, Chain Reaction Research has developed a methodology to quantify "contested land" as the portion of the company's land bank which is or may credibly be subject to controversy by the company's stakeholders, including regulators/law enforcers, local communities, conservation and social NGOs, buyers and investors. The percentage of contested land within the company's total land bank is calculated by identifying those areas where key land-related ESG-standards are or at risk of being breached.

KLK's claimed land bank in Indonesia, Malaysia, Liberia and Papua New Guinea encompasses a total area of 421,819 ha (see Table 2). Based on evidence presented in the previous sections, we estimate that 52% of this land bank is contested land (see Table 14).

Table 14 Contested land as share of KLK's land bank

Category contested land	Ha	%
Deforestation 2006-2013 in Kalimantan	24,400	6%
Liberia	155,000	37%
Papua New Guinea	6,000	1%
Land dispute with Indonesian communities	5,300	1%
Forestland occupation in Indonesia	28,100	7%
Forests unprotected against planting	6,600	1%
Eliminate double-counting	(9,900)	-2%
Contested land within land bank	**215,500**	**51%**
Not contested	206,300	49%
Total land bank	421,800	100%

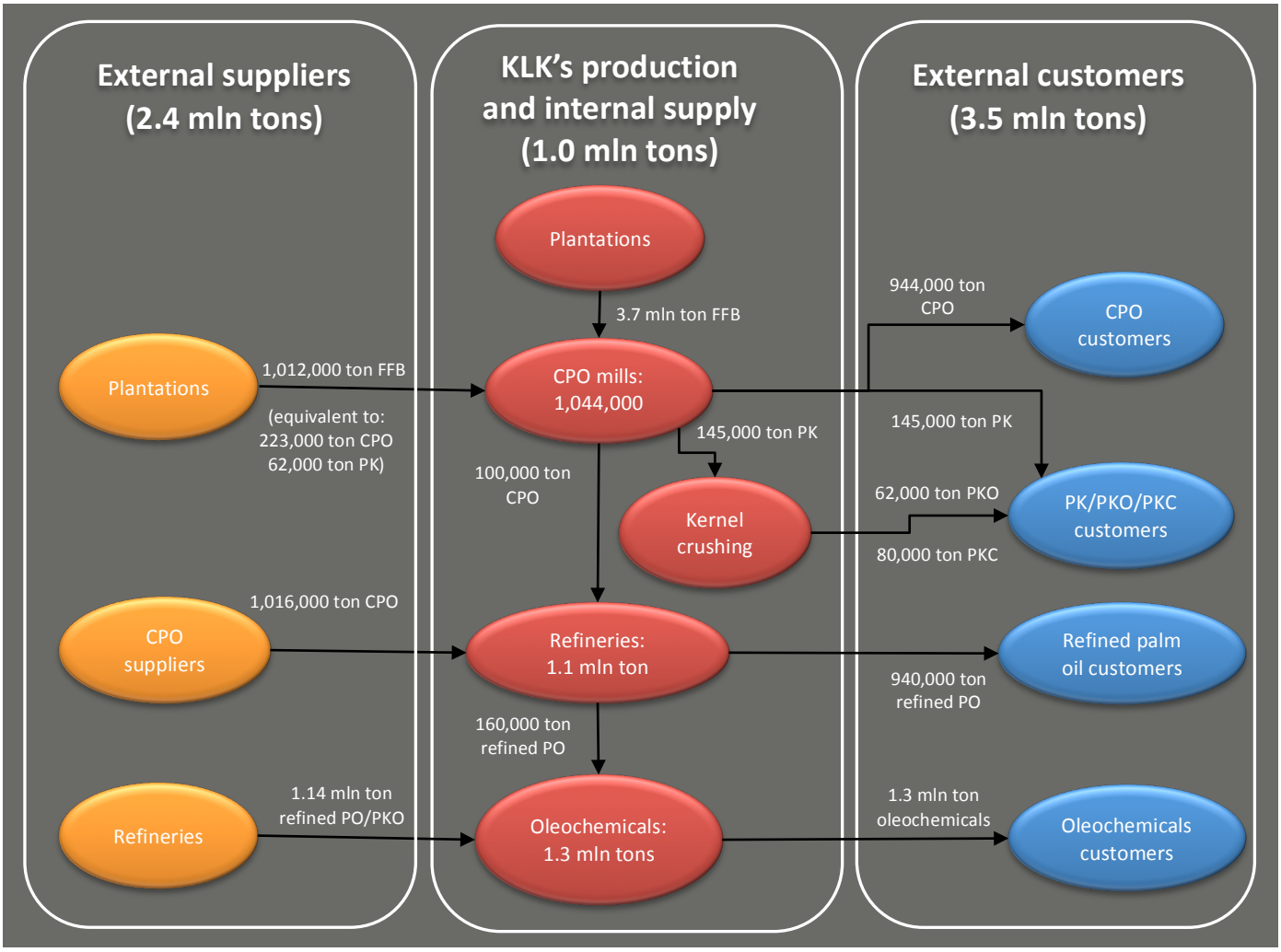
The category "Forests unprotected against planting" comprises on-going Kalimantan plantation developments in areas where it is not clear whether the forests are protected, or whether they have been or will be cleared after the point of our deforestation assessment (PT Menteng Jaya Sawit Perdana: 1,900 ha of peatland forest; PT Karya Makmur Abadi: 1,600 ha). This category also comprises PT Anugrah Surya Mandiri (3,100 ha of forest), which had not cleared forests at the point of our deforestation assessment, but it was found that forests were being cleared after the company submitted a New Planting Procedure notification at the RSPO in April 2013.[136]

While Table 14 gives an overview of the contested land area as a percentage of KLK's total land bank, it is important to stress that only 32% of the oil palm products sold by KLK are derived from its own land bank. A full assessment of KLK's sustainability profile would require an additional assessment of the third-party plantations where the other 68% of KLK's sales is originating from, but KLK does not provide any information about these suppliers.

2.9 Supply chain governance

While KLK operates in various stages of the palm oil supply chain (plantations, CPO mils, refineries and oleochemical plants), its vertical integration is not very strong. Figure 7 gives an overview of internal supplies between different steps in KLK's supply chain and the supplies from and to third parties in each step.

Figure 7 KLK: Volumes flows of external and internal supplies and external sales



Sources: Kuala Lumpur Kepong, "Annual Report 2013", December 2013, p. 15, 16, 27, 28, 125; CRR estimates.

As shown in Figure 7, KLK processed 4.7 million tons of FFB in its CPO mills in FY2014, of which 78% (3.7 million tons) from its own plantations. This resulted in 1,044,000 tons of CPO and an estimated 290,000 tons of palm kernels. Of this total volume of 1.3 million tons of oil palm products, 1.0 million tons (79%) originates from KLK's own plantations.

Figure 7 also shows that in 2014, KLK sold an estimated total volume of 3.5 million tons of oil palm products to external suppliers: CPO, palm kernels, palm kernel oil, palm kernel cake, refined palm oil and palm kernel oil, and oleochemicals. Of this sale volume, only 1.0 million ton (or 30%) is derived from the FFB that KLK harvested on its own plantations. The other 2.4 million tons (or 70%) is derived from oil palm products sourced from external suppliers, including:

- A net supply of 1,012,000 tons of FFB, representing around 21% of the total FFB volume processed by KLK's CPO mills. (This FFB volume was processed into 223,000 tons of CPO and 62,000 tons of palm kernels);

- An estimated supply of 1,016,000 tons of CPO, accounting for 91% of the total volume refined by KLK's refineries;
- An estimated supply of 1.14 million tons of refined PO and PKO, accounting for 88% of the total volume processed by KLK's oleochemical plants.

The external suppliers of FFB to KLK's CPO mills include three companies owned by the Lee family, the dominant shareholders of KLK (see section 1.8.1). These companies are:

- PT Agro Makmur Abadi in Belitung, that delivered 120,000 tons of FFB to KLK, mostly from smallholders;[137]
- PT Safari Riau, which is one of the plantation companies supplying almost 50,000 tons of FFB to the Nilo 1 POM of PT Adei in Riau.[138]
- PT Satu Sembilan Delapan in East Kalimantan, which is 92% owned by KLK's parent company Batu Kawan Berhad (see Figure 3). This company sells more than 90,000 tons of FFB yearly to KLK.[139]

The FFB supplies of these three companies to KLK had a total value of RM 154.6 million in 2014.[140] This is about 36% of the estimated value of KLK's external FFB purchases (see Table 18). Sustainability issues related to these three suppliers are discussed in this chapter. Names of the remaining FFB suppliers are not known.

Very little information is known about the companies supplying CPO to KLK's refineries and about the companies supplying refined product to KLK's oleochemical plants. We found the following information on CPO supplies:

- The Indonesian plantation company PT Astra Agro Lestari Tbk., which operates plantations in several provinces on Sumatra, Kalimantan and Sulawesi, in 2011 supplied an unknown volume of CPO to KLK Premier Oils, the KLK-refinery in Sabah;[141]
- The Indonesian plantation company PT Austindo Nusantara Jaya Tbk., which operates plantations in North Sumatra, South Sumatra, Bangka-Belitung and West Kalimantan, in the first half of 2014 supplied CPO with a total value of USD 7.8 million to PT Steelindo Wahana Perkasa, KLK's new refinery on Belitung island.[142]
- The Indonesian plantation company Dharma Satya Nusantara recently mentioned it is a - probably smaller - CPO supplier of KLK's refinery in Sabah.[143]

PT Astra Agro Lestari Tbk., an Indonesian palm oil company that is not a member of the RSPO,[144] could further develop into an important supplier of KLK. The two companies set up a marketing joint venture in August 2013.[145] This joint venture is focussing on the sale of refined palm oil products from Astra Agro Lestari's new refinery in Mamuju, West Sulawesi. The joint venture Astra-KLK Pte. Ltd., which is 51% owned by KLK, is selling these products on the international market. The Japanese company Mitsui is a large customer of Astra-KLK.[146]

In the first nine months of 2014, 15% of Astra Agro Lestari's revenue was derived from the sale of oil palm products to Astra-KLK.[147] However, it is not clear whether the joint venture supplies to the oleochemical operations of KLK in China.

In November 2014, another joint venture between Astra and KLK was announced. This 50/50 partnership appears to focus on Sumatra. KLK has recently been developing two refineries in Riau (one in Dumai) and an oleochemical plant in Dumai. According to KLK, the deal aims to leverage synergies

from both parties' expertise in this industry. “KLK will be bringing in its downstream expertise, whereas Astra will be bringing in its local market insight to supply sourcing as well as significant supply of its good quality raw materials.”[148]

The lack of transparency on its supply chain and the flaws in its sustainable sourcing policy (see section 2.11.2) create a huge sustainability risk for KLK: for 70% of the oil palm products which the company is selling it is hardly known from which oil palm plantations these products are originally derived.

2.10 Tax avoidance

As shown in Figure 3, KLK and its dominant shareholders (the Lee family) have set up various holding companies in tax havens such as the British Virgin Islands, Cayman Islands, Guernsey and Mauritius. KLK does not develop real economic activities in these jurisdictions, but has incorporated holding companies there to avoid taxation on dividend flows and/or capital gains (when a subsidiary is disposed of with a profit).

This type of international tax avoidance is not illegal, but is increasingly seen as unwanted and unethical by international bodies like the G20,[149] the European Union,[150] and the OECD.[151] This is because tax income is crucial for governments to be able to carry out their duties and to provide basic services such as healthcare, safety and education. International tax avoidance is therefore framed as “Base Erosion and Profit Shifting” by the OECD, which has developed an action plan to combat this corporate behaviour.[152]

One case in which KLK avoided paying taxes through holding companies in tax havens was the sale of the British retail chain Crabtree & Evelyn, which sells personal care products, toiletries and fine foods in 10 countries. Crabtree & Evelyn was owned by CE Holdings Ltd. - located in the British Virgin Islands - which in turn was owned by KLK’s wholly owned subsidiary KLK Overseas Investments Ltd., also located in the British Virgin Islands. In March 2012, KLK Overseas Investments Ltd. sold CE Holdings Ltd. for RM 471.6 million (US$ 144.9 million) to Khuan Choo International (Hong Kong). As a result, Khuan Choo became the owner of the Crabtree & Evelyn retail chain.

This transaction resulted in a net capital gain of RM 135.7 million (USD 41.8 million) for KLK. This amount was recorded in KLK’s income statement as a profit from discontinued operations on which no tax was paid as the seller (KLK Overseas Investments Ltd.) is based in the British Virgin Islands, a jurisdiction where capital gains tax is not levied.[153]

If KLK had owned Crabtree & Evelyn directly from Malaysia, the capital gains realised with its disposal would have likely been taxed by the UK tax authorities against the normal Corporation Tax rate of 24%.[154] Since KLK did not sell Crabtree & Evelyn directly, but only sold a holding company in the British Virgin Islands, we estimate that a tax payment of USD 10 million to the British tax authorities was avoided.

2.11 Sustainability outlook

2.11.1 Findings of the Sustainability Risk Assessment

The main findings of CRR's Sustainability Risk Assessment are that KLK is not transparent on several significant indicators, while the company faces some very serious sustainability issues:

- Over the last seven years, KLK has been deforesting 24,000 ha in Kalimantan. The company states that there is a report showing that these forests were not primary forest or High Conservation Value areas. This report was however never made public by KLK, so stakeholders cannot assess its value. KLK has also not published the size of the conservation areas it controls in some of its plantation areas.
- In September 2014, KLK's promised to stop developing High Carbon Stock (HCS) forests. In October 2014, the first infringement on this promise came to light (see section 2.2).
- The company claims to have a zero-burning policy. However, in September 2014, KLK-subsidiary PT Adei was convicted for the use of fire to clear land in Riau. A KLK manager was sentenced one year in prison, and KLK was fined IDR 1.5 billion and ordered to pay IDR 15 billion (around USD 1.2 million) for recovery of the environmental damage caused.
- KLK does not reveal its greenhouse gas (GHG) emissions, although it is significant source of climate pollution. The company cultivates oil palms on 17,500 ha of peatland, the drainage of which causes annual GHG emissions equivalent to the emissions of 450,000 private cars.
- KLK states that it will abide by the RSPO P&C in Papua New Guinea, but at the same time it is looking to develop oil palm in primary forest areas there. In addition, KLK has tried to bypass communities rather than following the RSPO adopted principle of *Free Prior Informed Consent.*
- In Liberia, KLK maintains its long-term plans to plant 145,000 ha of oil palm, even though this presents serious environmental and social challenges. After already developing its first plantation in the country, the company faced opposition from local communities that want to secure their land rights with support from international NGOs.
- KLK has a poor record in Indonesia on social issues: the company is still facing accusations of using child labour in East Kalimantan, has had disputes with local communities in Riau, and has been found guilty for the improper treatment of day labourers.
- In Indonesia, KLK has put some 28,000 ha of concession areas at risk. These areas fall under the statutory jurisdiction of the Ministry of Forestry, and the Ministry has never given permission for their occupation. We estimate that KLK will have to return at least 6,000 ha back to the state.
- While KLK's annual sales in 2014 amounted to some 3.5 million tons of oil palm products, only 1.0 million tons is derived from its own plantations. 70% of its total sales are derived from oil palm products sourced from - mostly unknown - external suppliers. The lack of transparency on its supply chain and the absence of a clear sustainable sourcing policy creates a huge sustainability risk for KLK, as nowadays many customers want to know the origin of their palm oil products.
- Almost all international NGOs involved in palm oil issues - such as Greenpeace, RAN and Friends of the Earth - are already targeting KLK in their campaigns.
- KLK has a huge backlog of issues to deal with in order to reach its goal of achieving 100% RSPO-certification in 2015. Two RSPO complaints, one in Liberia and one Papua New Guinea, are still not resolved. KLK has shown little commitment towards addressing these outstanding conflicts.
- KLK has set up various tax avoidance structures, which allow it to avoid capital gains taxes.

During 2014, there were several new developments with regard to KLK's sustainability issues. These developments, and its progress in achieving RSPO-certification, are evaluated in the next sections.

2.11.2 KLK's policy developments

Below is an overview of recent developments related to KLK's sustainability policy:

- **The Manifesto**
  In July 2014, KLK signed the so-called Sustainable Palm Oil Manifesto,[155] and in December 2014, it published a new sustainability policy.[156] The Manifesto followed a wave of No Deforestation policies by KLK's competitors and customers, such as Wilmar International, Golden Agri-Resources, Unilever, Nestlé, and Procter & Gamble.[157] These industry leaders committed to respect the concept of Free Prior Informed Consent (FPIC) towards communities, and break the link between oil palm expansion and deforestation through the conservation of High Conservation Value (HCV), High Carbon Stock (HCS) areas and peatlands. Wilmar, which controls 43 per cent of the global palm oil trade, explicitly made its policy apply to all of the company's palm oil supply immediately (on its own estates) or by the end of 2015 (for third-party suppliers).[158] The Manifesto signatories also signed up in favour of FPIC and against oil palm on HCV and peat areas regardless of depth.

- **High Carbon Stock (HCS) interpretations**
  However, the Manifesto of July 2014 did not rule out deforestation of High Carbon Stock (HCS) areas.[159] In September 2014, KLK added that it would temporarily stop deforestation of HCS areas, pending the results of an HCS-study described below. In January 2015, it added that this meant adoption of the current industry HCS standard developed by Golden Agri-Resources (GAR), The Forest Trust (TFT) and Greenpeace.[160] This standard defines High, Medium, Low Density and Regenerating Forests, and excludes oil palm plantings on these forest types.[161] Companies such as Wilmar and Golden Agri-Resources (GAR) are already bring this standard into practice.

  In the meantime, companies including Asian Agri, IOI, KLK, Musim Mas, Sime Darby, Wilmar International, Cargill and Unilever are funding their own study to define HCS areas.[162] The HCS study, which is expected to last until November 2015, intends to move away from the current standard of deforestation, and to take a wider approach that supposedly includes GHG emissions during plantation management and socioeconomic circumstances. Compared to the current industry standard for HCS, the study could weaken safeguards against clearing valuable, carbon-rich forests.[163] KLK intends to follow the outcomes of the study, while other companies such as Wilmar have made it clear that they intend to stick to the existing HCS foundational approach.

- **KLK's supply chain management still in its infancy**
  On paper, KLK is getting closer the leading sustainability policies set by its competitors, but there are still major issues in its implementation and its approach to HCS protection. For example, industry leader Wilmar has shown itself to be much more aggressive and transparent in making sure that its policy will be implemented throughout its entire supply chain. Wilmar has made it clear to its suppliers that they need to have No Deforestation policies and practices in place by the end of 2015. In January 2015, Wilmar took a major step forward by disclosing all of its palm oil suppliers (to the mill level) that deliver to its refineries and oleochemical companies.[164]

  KLK remains far from establishing transparency about its suppliers and implementing its policy throughout the entire supply chain. It has stated, in its new sustainability policy, that third party suppliers will have to abide by its policy by the end of 2016. However, it has not revealed a road map of any kind for achieving this major transformation.165 For example, KLK appears reluctant to put

the Indonesian palm oil giant Astra Agro Lestari under scrutiny considering the fact that KLK has just started two major joint ventures with Astra, which has no policies in place to stop deforestation and peatland development. In fact, Astra is not even a member of the RSPO.

- **Room for improvement policy: working conditions**
  While KLK's sustainability policy signifies a small step forward, the policy also falls with regard to working conditions for its employees and labourers. For example, KLK does not ban the practice of charging workers with recruitment fees by labour recruiters and employment agencies. Recruitment fees contribute to forced labour exploitation and debt bondage. Furthermore, KLK still does not support the unconditional, fundamental rights of workers adopted by the International Labour Organization (ILO) of the United Nations. These rights have been established by eight UN conventions, dealing with:
  - freedom of association and the effective recognition of the right to collective bargaining;
  - the elimination of all forms of forced or compulsory labour;
  - the effective abolition of child labour; and
  - the elimination of discrimination in respect of employment and occupation.[166]

  For example, where the right to freedom of association and collective bargaining are restricted under National law, KLK does not commit to making equivalent means of independent and free association and bargaining available for its personnel. Further, KLK does not yet ban the use of Paraquat, a toxic pesticide that is already forbidden within the European Union.[167] Finally, KLK states that it will respect reproductive rights in line with a country's laws. However, for Malaysia this means that if a migrant worker gets pregnant in Malaysia (which is against the law) KLK is entitled to fire the worker.[168]

2.11.3 Progress in achieving RSPO-certification

As of December 2014, more than half of KLK's plantation area was RSPO-certified. Nearly all the company's Malaysian mills and plantations are RSPO certified, while three quarters of its Indonesian plantation areas still remain uncertified. Table 15 shows the figures on KLK's RSPO certification progress.

Table 15 KLK's RSPO certification progress as of December 2014

Category contested land	Land bank Malaysia (ha)	%	Land bank Indonesia (ha)	%	Total land bank Indonesia and Malaysia	%
Certified mills and plantations	98,688	90	35,659	26	134,347	54
Non-certified mills and plantations	5,901	5	101,824	74	107,725	44
Plantations with rubber only	4,693	4	0	0	4,693	2
Total land bank	**109,282**	**100**	**137,483**	**100**	**246,765**	**100**

Source: KLK, "Annual report 2014" pages 152 and 153.
RSPO, "Principles and Criteria Assessment Notification", http://bit.ly/WN0gp3, as viewed in January 2015
RSPO, "Certified growers", http://bit.ly/1xYFoKl, as viewed in January 2015.

In its 2014 Annual Report, KLK states that, "all our operating centres in Malaysia are fully certified by the RSPO and we are on track to achieve certification of all our plantations in Indonesia by 2015."[169] However, this is not entirely true for their Malaysian operations, as certification process for one of their

mills is still pending. This is the Kuala Pertang mill in Peninsular Malaysia with a supply comprising almost 6,000 ha.[170] KLK's RSPO certifications in Malaysia currently comprise plantations that were planted in the mid-1990s or earlier. Older plantations that are currently well managed are a relatively easy target for RSPO-certification. The RSPO does not take into account past sustainability and social issues, such as the clearing of HCV-areas and community consent, that occurred when plantations were initially established.

In Indonesia, KLK has a huge backlog of issues to address in order to reach its 2015 goal. In fact, as of December 2014, only four Indonesian POMs have acquired the necessary certification.[171] Table 16 provides for a breakdown of non-certified mills and areas in Indonesia, combined with the latest information on their certification progress.[172] All of KLK's mills and areas in Kalimantan, North Sumatra and Belitung Island are yet to be RSPO-certified.

Table 16 KLK: Non RSPO-certified mills and supply bases in Indonesia

Area	Palm Oil Mill (POM)	Land bank (ha)	Certification progress
Belitung	Steelindo Wahana Perkasa, incl. POM	14,065	Audited autumn 2013, pending
Belitung	Parit Sembada, incl. POM	3,990	Pending
Belitung	Alam Karya Sejahtera	2,336	
Central Kalimantan	Karya Makmur Abadi, incl. POM	13,148	Yet to be commissioned
Central Kalimantan	Menteng Jaya Sawit Perdana	5,893	
Central Kalimantan	Mulia Agro Permai, incl. MAP POM	9,056	Pending
East Kalimantan	Anugrah Surya Mandiri	2,682	
East Kalimantan	Berau 1 POM	7,317	Pending
East Kalimantan	Berau 2 POM		Yet to be commissioned
East Kalimantan	Jabontara Eka Karsa	14,086	
East Kalimantan	Malindomas Perkebunan	7,971	
North Sumatra	Langkat Nusantara Kepong, incl. two POMs	21,280	Pending
North Sumatra	Stabat POM		Yet to be commissioned
		101,824	

Sources: Control Union, "Annual Surveillance Assessment Report, Changkat Chermin palm oil mill", http://bit.ly/1rQBahr, September 2014; KLK, "Annual report 2014" December 2014, p. 152-153; RSPO, "Principles and Criteria Assessment Notification", http://bit.ly/WN0gp3, as viewed in January 2015.

3 Financial analysis

3.1 Income and costs

Table 17 provides key income indicators for KLK for the period 2009 to 2014. In the past five years, KLK's sales and EBITDA have increased by 67.2% and 34.2% respectively. Over the same period, net profits have appreciated by 60.7%, resulting in a slightly lower net profit margin (-3.9%).

The growth of sales has mainly been driven by the expansion of the manufacturing segment (+73.5%). But the profitability of the company is largely dependent on its oil palm plantations, accounting for 76.1% of profit before tax in FY2014 (Table 1). This means that KLK's profitability is strongly influenced by the volatility of CPO and PK prices.[173]

Table 17 KLK: Key income indicators, 2009-2014

Indicator	FY2009	FY2010	FY2011	FY2012	FY2013	FY2014	Change 2009-2014
	RM million						
Sales	6,658.3	7,490.6	10,743.0	10,570.2	9,147.3	11,130.0	67.2%
EBITDA	1,223.7	1,471.5	2,306.8	1,706.5	1,516.9	1,642.7	34.2%
Operating Profit	921.6	1,403.7	2,041.6	1,480.4	1,267.2	1,399.2	51.8%
Net Profit	642.6	1,067.3	1,645.5	1,260.1	967.0	1,032.7	60.7%
Net Profit Margin %	9.7%	14.2%	15.3%	11.9%	10.6%	9.3%	-3.9%
Net income to shareholders	612.5	1,012.3	1,571.4	1,211.2	917.7	991.7	61.9%

Sources: Kuala Lumpur Kepong, Annual Reports 2010-2014; Bloomberg.

In 2014, the declining trend in KLK's sales and profits from 2012-2013 was reversed due to the rise in palm product prices. FFB production costs went down from the lower fertiliser prices and other cost control measures.[174]

Table 18 gives an estimated breakdown of costs in KLK's Plantations segment, which accounts for 47% of total sales and 77% of profits before tax (see Table 1). The Plantations segment includes KLK's oil palm and rubber plantations, as well as its refineries. The breakdown is based on figures provided by KLK on average costs, output volumes and profits realised with different activities, as well as from estimates by CRR.

Table 18 Breakdown of costs of KLK's Plantations segment in 2014

Cost category	Tons (thd)	Costs/ton	Costs (RM thd)	%
FFB production	*3,733.9*	*208.0*	*776,644*	*16.8*
FFB procured (net)	*1,011.8*	*420.7*	*425,614*	*9.2*
CPO milling	*4,745.6*	*10.0*	*47,456*	*1.0*
CPO production costs	1,044.0	1,197.0	1,249,715	27.0
Rubber production	18.2	6,843.3	124,569	2.7
Kernel crushing costs	144.7	76.9	11,134	0.2
CPO/CPKO procurement	1,016.2	2,300.0	2,337,363	50.5
Refining costs	1,116.2	151.1	168,639	3.6
Other costs (marketing, transport, finance, a.o.)			740,263	16.0
Total costs			**5,881,397**	**100.0**

Sources: Kuala Lumpur Kepong, "Annual Report 2014", December 2014, p. 13, 15-16, 27-28, 131; CRR calculations.

As shown in Figure 7, KLK's refineries rely on external CPO supplies for about 91% of their demand. Table 18 shows that as a result, procurement costs of CPO constitute the most important cost category of the Plantations segment, accounting for 51% of total costs. KLK's own CPO production - based on its own FFB production (79%) and procured FFB (21%) - accounts only for 27% of total costs. This activity is hugely profitable, accounting for 76% of pre-tax profits (Table 1).

3.2 Market capitalization and balance sheet

Table 19 gives an overview of the development of KLK's market capitalization and the main balance sheet categories in the past five years.

Table 19 Kuala Lumpur Kepong: Market capitalization and balance sheet, 2010-2014

Indicator	FY2010	FY2011	FY2012	FY2013	FY2014	Change 2010-2014
	RM million					
Market capitalization	18,104.4	22,470.8	23,493.1	24,068.2	22,449.5	24.0%
Cash & equivalents	1,255.1	1,670.2	2,358.9	1,756.9	1,295.8	3.2%
Total Assets	9,163.5	10,969.9	11,383.1	11,747.9	12,887.6	40.6%
Total Liabilities	2,838.2	3,503.8	3,875.6	3,794.7	4,704.4	65.8%
Total Equity	6,325.3	7,466.0	7,507.6	7,953.2	8,183.2	29.4%

Source: Kuala Lumpur Kepong, "Annual Reports 2010-2014".

Between 2010-2014, the company's market capitalization appreciated by 24.0%. Until FY2013, the market capitalization increased from RM 18.1 to RM 24.1 billion due to a steady growth of sales and net profits. However, FY2014 showed a depreciation of the market capitalization to RM 22.4 million. KLK's total assets increased by 40.6% over the past five years. Biological assets increased at a more moderate pace (+24.4 %), which reflects that KLK invested relatively more in downstream activities. KLK's cash position improved by 3.2%.

Although the company is still conservatively financed, growth in debt (+65.8%) has been higher than equity growth (+29.4%), mainly due to the issuance of Islamic bonds. In 2012, KLK issued RM 1.3 billion of Islamic bonds or Sukuks, which were still outstanding in 2014.[175] Over the next few years, KLK's level of borrowings is not expected to rise much, as capex should be sufficiently covered by its own cash flow.[176]

Table 20 further analyses KLK's financing structure, showing a breakdown of KLK's equity and liabilities by groups of financial stakeholders at the end of FY2014.

Table 20 KLK: Breakdown of equity & liabilities by financial stakeholders, end FY 2014

Financial stakeholders	Amount (RM million)	%
Shareholders	7,751.7	60.1
Joint-venture partners (non-controlling interests)	431.5	3.3
Banks	1,278.0	9.9
Islamic Bondholders	1,300.0	10.1
Others	2,126.4	16.5
Total equity & liabilities	**12,887.6**	**100.0**

Source: Kuala Lumpur Kepong, "Annual Report 2014", p. 74, 118.

Shareholders are the most important financial stakeholders of KLK, financing 60.1% of its total equity and liabilities at the end of September 2014. Bank loans accounted for 9.9%, and Islamic bondholders accounted for 10.1%. KLK's relatively low dependence on debt provides the company adequate financial flexibility.

Table 21 provides an overview of the banks that have underwritten bond issuances of KLK or were mentioned as its principal bankers in the past five years.

Table 21 Banks financing Kuala Lumpur Kepong (2009-2014)

Bank	Country of origin	Underwriting (USD million)	Principal banker
CIMB	Malaysia	169	x
Hong Leong Company	Malaysia	20	
HSBC	United Kingdom		x
Malayan Banking	Malaysia	169	x
Mirabaud Group	Switzerland	21	
Oversea-Chinese Banking Corporation	Singapore	20	x
Public Bank	Malaysia		x
RHB Banking	Malaysia	40	
Total		**439**	

Source: *ThomsonONE Banker*, "Loans and issuances", viewed in September 2014; KLK, "Annual Reports 2009-2014".

3.3 Financial ratios

3.3.1 Profitability ratios

Table 22 gives an overview of the development of KLK's profitability ratios over the past four years.

Table 22 Kuala Lumpur Kepong: Profitability ratios

Ratio	FY2011	FY2012	FY2013	FY2014
Gross profit margin %	27.9%	23.5%	21.3%	19.1%
EBITDA margin %	21.5%	16.1%	16.6%	14.8%
Net income margin %	14.6%	11.5%	10.0%	8.9%
Return on assets (ROA) %	14.3%	10.6%	7.8%	7.7%
Return on equity (ROE) %	22.2%	17.0%	12.2%	12.8%

Sources: Kuala Lumpur Kepong, "Annual Reports 2012-2014"; Bloomberg, Viewed in January 2015.

KLK's profitability ratios have dropped over the past four years. The net income margin decreased to 8.9% in 2014 (from 14.6% in 2011), Return on Assets almost halved to 7.7% in 2014, while the Return on Equity (12.8% in 2014) is significantly lower compared to 22.2% in 2011. The decrease in profitability ratios can be explained by the poor results of KLK in its downstream businesses, which are highly dependent on external sourcing (see Figure 7) - and thereby of the volatility in palm oil prices.

3.3.2 Leverage and coverage ratios

Table 23 provides an overview of the leverage and coverage ratios of KLK in the past three years.

Table 23 Kuala Lumpur Kepong: Leverage and coverage ratios

Ratio	FY 2011	FY2012	FY2013	FY2014
Current ratio (current assets / current liabilities)	1.91	3.05	2.52	2.01
Quick ratio (current assets - inventories / current liabilities)	1.24	2.28	1.88	1.36
Interest coverage ratio (EBITDA / interest)	31.07	25.77	18.75	18.80
Net debt/EBITDA (total debt - cash / EBITDA)	0.18	0.07	0.38	0.98
Debt ratio (total liabilities / total equity + total liabilities)	0.32	0.34	0.32	0.37
Debt-equity ratio (total liabilities / total equity)	0.50	0.55	0.50	0.61

Sources: Kuala Lumpur Kepong, "Annual Reports 2012-2014"; Bloomberg, Viewed in January 2015.

The development of the liquidity ratios (current and quick ratios) shows that the company has an adequate management of working capital and is able to pay off its short-term obligations. Interest coverage (or EBITDA to interest) has decreased in the past three years, but remains at a healthy level (18.8).

Borrowings are only increasing slowly, hence the debt ratio remains very moderate at 0.37. The debt-equity ratio is still only 0.61. This means the company has a sound credit profile, despite reduced cash flow and net income in FY2013. Based on this, the Malaysian ratings agency RAM awarded KLK with a high-investment grade global corporate credit rating of Ga3/Stable/gP2 and the Islamic bonds as AA1/Stable.[177]

3.3.3 Valuation ratios

Table 24 provides an overview of the valuation ratios of KLK shares in the past two years.

Table 24 Kuala Lumpur Kepong: Valuation ratios

Valuation ratio	FY2011	FY2012	FY2013	FY2014
Price / Earnings	14.3	19.4	26.2	22.6
Enterprise Value / EBITDA	10.1	14.1	16.5	14.9
Price / Sales	2.1	2.2	2.6	2.0
Price / Book value	3.2	3.3	3.2	2.9
Dividend yield (%)	4.0%	2.9%	2.2%	2.6%

Sources: Kuala Lumpur Kepong, "Annual Reports 2012-2014"; Bloomberg, Viewed in January 2015.

Valuation ratios have decreased for the company, despite an increase in profitability in FY2014, with a Price to Earnings ratio of 22.6, and an Enterprise Value to EBITDA ratio of 14.9. The dividend yield has slightly increased to 2.6%, in line with the higher net profit available to shareholders. This dividend yield compares favourably to the average dividend yield of 1.8% that palm oil company peers pay to shareholders.[178]

3.3.4 Comparison with peers

Table 25 compares some of the profitability and valuation ratios of KLK with those of other major palm oil companies.[179]

Table 25 Kuala Lumpur Kepong compared to peers in FY2013

Company	Country	Market Capitalization (USD million)	Return on Assets %	Return on Equity%	Price/ Earnings	Price/ Sales	Profit margin %
Kuala Lumpur Kepong	Malaysia	7,600	8.4	13.0	25.3	2.6	10.2
Astra Agro Lestari	Indonesia	3,248	13.2	19.0	22.9	3.2	14.2
Bumitama Agri	Singapore	1,309	8.2	16.3	22.7	4.6	20.3
Felda Global Ventures	Malaysia	4,992	5.3	15.5	14.5	1.1	7.8
First Resources	Singapore	2,660	12.8	22.7	12.1	4.2	34.5
Genting Plantations	Malaysia	2,553	4.8	6.7	33.7	5.6	16.5
Golden Agri-Resources	Singapore	5,542	2.3	3.6	17.0	0.8	4.7
IOI Corporation	Malaysia	10,935	12.8	24.6	18.7	2.5	13.2

Source: Bloomberg, Viewed in January 2015.

As shown in Table 25, KLK is one of the leading palm oil companies in terms of market capitalization. However, its net profit margin of 10.2% is relatively lower than its peers. Its Return on Assets (8.4%) and its Return on Equity (13.0%) are average compared to its peers.
KLK's stock also is expensive relative to industry peers: its Price to Earnings ratio (25.3) is higher than most peers, although its Price to Sales ratio (2.6) is relatively average. Its high Price to Earnings ratio could be explained by KLK's larger market capitalization, steady cash flows and earnings, relatively low leverage, and growth prospects outside traditional Indonesian and Malaysian markets.

4 Financial Risk Assessment (FRA)

4.1 Objective and approach

This chapter discusses the financial risks that KLK could face as a result of the sustainability risks identified in chapter 2. The objective of discussing these scenarios is not to predict the future; rather, its value is in showing how KLK's sustainability issues could potentially impact its financial indicators. The scenarios aim to describe plausible scenarios that show how previously inconceivable or imperceptible developments may play out.

For this assessment, a financial model is used that is based on KLK's most recent financial statements and Bloomberg estimates on future earnings. Based on these data, a baseline scenario is developed in which sustainability issues do not have an impact. Consequently, two alternative scenarios are developed based on assumptions with regard to the impacts of sustainability issues and KLK's management response to these. The impacts of the scenarios on key financial indicators, such as RoE, RoA, leverage and profit margins, are analysed.

Apart from the baseline scenario, two alternative scenarios have been identified:

1. KLK could potentially lose global customers that have adopted No Deforestation policies, who would be forced to stop buying from KLK because it does not comply with industry-leading sustainability practices.
2. KLK could lose its RSPO membership, which would trigger the loss of even more customers that treat RSPO membership as a precondition for a supply relationship.

For comparative purposes, each of these two scenarios is assumed to occur at the beginning of FY2016, i.e. in October 2015. To assess the financial impacts of these scenarios in FY2016 and FY2017, they are compared with the baseline scenario. Section 4.2 provides an overview of the baseline scenario. Section 4.3 elaborates on the first scenario, while section 4.4 discusses the second.

4.2 Baseline scenario

Table 26 gives an overview of KLK's main financial indicators for the fiscal years 2013 and 2014, as well as the estimated development of these indicators from 2015-2017. These estimates are based largely on analyst consensus estimates published by Bloomberg, with some additional estimates by Chain Reaction Research. The baseline scenario assumes a business-as-usual development for KLK, in which the sustainability issues discussed in chapter 2 do not have a significant impact on its financial results.

The following general assumptions are applicable for the baseline scenario. They also apply to the alternative scenarios, unless stated otherwise in the description of these scenarios:

- Revenues and income follow Bloomberg estimates;
- Corporate tax rates equal the average of the past three years: 20.1%;
- When net income is positive, dividends equal the average of the past three years: 67.4% of net income. The other 32.6% is added as retained earnings to the company's equity;

- Minority interests account for 4.3% of net profit, of which 28.1% is retained on the balance sheet and the rest is paid as dividends;
- The company does not issue new shares and does not attracted more long-term debt;
- Fixed assets follow historical growth of 7% per year;
- Investments are depreciated at constant rates;
- Current liabilities follow historical growth of 5% per year.

Based on these assumptions, Table 26 shows the baseline scenario for KLK's key financial indicators from 2013-2017.

Table 26 Kuala Lumpur Kepong: Baseline scenario for 2013-2017

Indicator		FY2013	FY2014	Est 2015	Est 2016	Est 2017
Sales	RM million	9,067.6	11,051.2	11,188.3	12,014.6	12,649.2
Net income	RM million	917.7	991.7	1,099.0	1,231.8	1,296.1
Net income margin	%	10.0%	8.9%	9.8%	10.3%	10.2%
Return on Assets	%	7.8%	7.7%	8.2%	8.8%	8.9%
Return on Equity	%	12.2%	12.8%	13.6%	14.5%	14.5%
Debt-equity ratio		0.50	0.61	0.59	0.58	0.57

Table 26 shows that in the baseline scenario, both sales and net income (profit attributable to the company's shareholders) show a clear rising trend. The net income margin improves to around 10.2% in 2017. Return on Assets rises to around 8.9% while Return on Equity improves to 14.5% in 2017. The leverage (debt-equity ratio) remains low at 0.57 in 2017.

However, KLK's positive financial development in the baseline scenario is assumed without considering the potential financial impacts of sustainability risks. The following sections will describe two alternative scenarios, indicating how KLK's financial indicators might be impacted by the sustainability issues described in chapter 2.

4.3 Scenario 1: KLK loses customers with No Deforestation policies

Since 2013, several growers, traders, processors and buyers within the global palm oil trade have committed to No Deforestation, No Peatland, No Exploitation policies. These policies are stricter with regard to sustainability than the criteria of the RSPO by including the protection of High Carbon Stock forests and peatlands. These policies, such as the one adopted in December 2013 by industry-leader Wilmar International, apply to the company's entire supply chain and third party suppliers.[180] As of December 2014, traders controlling over 90 percent of the global palm oil market have committed to this type of No Deforestation policy.

Given the fact that KLK's does not adequately address deforestation in its supply chain and by third-party suppliers, the company is at serious risk of losing its customers that have already or are likely to soon adopt No Deforestation policies. These include clients like Wilmar, Cargill, Unilever, P&G and other indirect customers listed in section 1.6. The fact that 70% of KLK's oil palm products are derived from undisclosed third-party plantations (see Figure 7), the company's customers and trading partners are likely to conclude that KLK is not compliant with their No Deforestation policies.

Therefore, we anticipate that customers with No Deforestation policies, which represent an estimated 20% of KLK's global sales, will be forced to soon stop buying CPO or other refined palm oil derivatives from KLK.

If these customers were to cancel their purchasing contracts at the beginning of FY2016 (October 2015), it would be difficult for KLK to find alternative buyers quickly because it is difficult to find clients with the necessary infrastructure to take such large volumes of crude palm oil, refined palm oil or manufactured products (oleochemicals) in the different areas where KLK operates.

We assume that KLK would only be able to replace 5% of total sales - 25% of the lost sales - in 2016, and 10% in 2017. We also assume that KLK would not be able to cancel a large part of its contracts with its third-party suppliers of FFB, CPO and refined palm oil (see Figure 7) to adjust to a reduced demand. Therefore, we assume that KLK can only reduce the costs of goods sold by 10%.

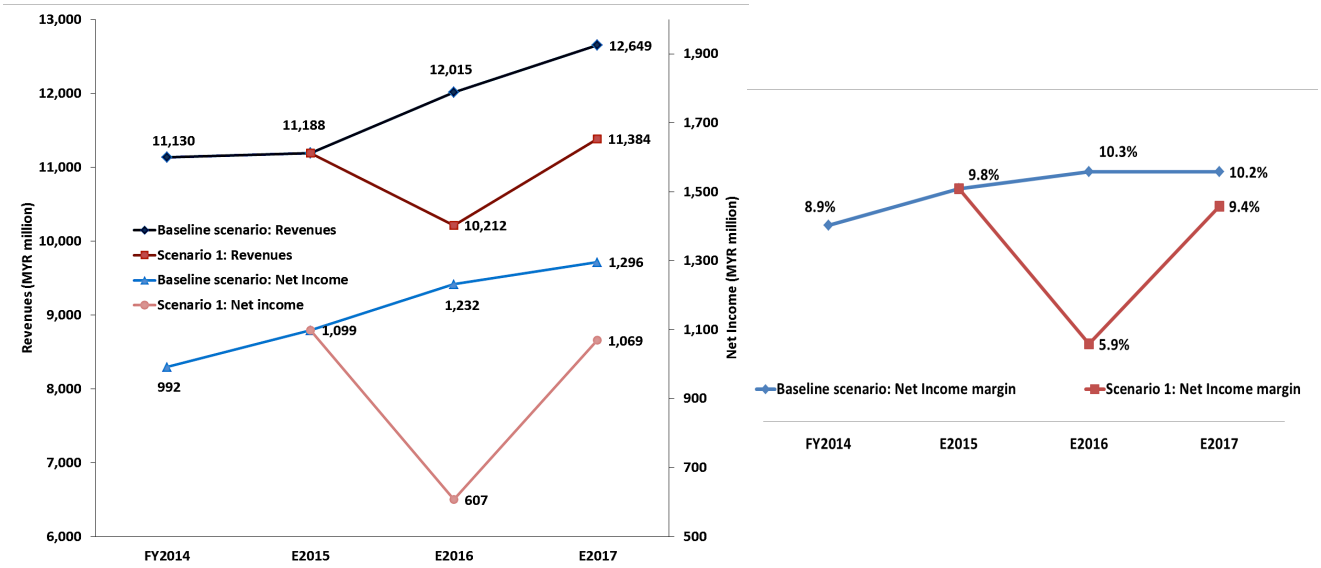
Based on the above assumptions, Table 27 gives estimates for the development of KLK's key financial indicators from 2013-2017 in this scenario.

Table 27 Scenario 1: KLK loses customers with non-deforestation policies

Indicator	Unit	FY2013	FY2014	Est 2015	Est 2016	Est 2017
Sales	RM million	9,147.3	11,130.0	11,188.3	10,212.4	11,384.3
Net income	RM million	917.7	991.7	1,099.0	606.9	1,069.0
Net income margin	%	10.0%	8.9%	9.8%	5.9%	9.4%
Return on Assets	%	7.8%	7.7%	8.2%	4.4%	7.5%
Return on Equity	%	12.2%	12.8%	13.6%	7.3%	12.3%
Debt-equity ratio		0.50	0.61	0.59	0.59	0.58

Table 27 shows that in this first scenario, in which KLK loses 20% customers with No Deforestation policies, the company would still generate a positive net income of RM 606.9 million in 2016, improving to RM 1,069 million in 2017. As a result, the net income margins would be lower than in the baseline scenario: 5.9% in 2016 and 9.4% in 2017. These lower figures would reduce Return on Assets and Return on Equity as well, thereby having a negative impact on the underlying value of KLK's stock price.

Figure 8 Scenario 1: KLK loses customers with non-deforestation policies



Given KLK's moderate debt level, the debt-equity ratio (leverage) would hardly change in 2016 and 2017, and would not imply major consequences for creditors in the short-term. However, this scenario will have an impact on the company's ability to maintain steady cash flows, which would be detrimental to KLK's interest coverage ratios and credit rating.

4.4 Scenario 2: KLK loses RSPO membership and more customers

A large group of companies in the palm oil sector have committed to only source certified sustainable palm oil (CSPO) following the Principles & Criteria of the RSPO. These companies include many customers of KLK. However, KLK raised doubts about continuing its RSPO membership, given its operations in Papua New Guinea and Liberia, and several issues in Indonesia. These issues are discussed further in chapter 2.

CRR estimates that in 2016, KLK's customer's base that requires certified sustainable palm oil (CSPO) could be around 30% of its total sales. This is based on the following assumptions:

- According to KLK, the total available production of certified sustainable palm oil (CSPO) from its 13 certified palm oil mills was approximately 640,000 tons in FY2014.[181] KLK's total output of oil palm products from its refineries and oleochemical factories is estimated to be 3.5 million tons (see section 2.9). Based on these figures, 18% of KLK's total output in 2014 already consisted of CSPO.[182]
- The demand for CSPO is expected to increase significantly in coming years. This is already shown by the global CSPO sales figures for the first half of 2014.[183] In addition, WWF's Palm Oil Buyers Scorecard shows that a number of palm oil buyers have committed to buy 100% CSPO starting in 2015,[184] increasing CSPO demand even further. Moreover, markets in Europe and the United States are generally aligned with CSPO, and the fact that KLK has a relatively large presence in these markets (26% of its revenue, see Table 8) contributes to our estimate that KLK will sell about 30% of its total sales in 2015 to customers demanding certified sustainable palm oil (CSPO).

We assume that the KLK customers that are now buying CSPO would stop buying palm oil from KLK if the company loses its RSPO membership. An example is BASF, which has not yet adopted a No Deforestation policy, but has a goal to purchase 100% of its palm oil and palm kernel oil from CSPO sources by 2015.[185] Other examples include the Japanese companies Mitsubishi Corporation and Fuji Oil, which are major customers of KLK (see Table 9). In addition, KLK's factories in Germany, Switzerland, Belgium and the Netherlands could be at risk of losing their large European customers who are generally committed to CSPO.

In this second scenario, if KLK loses its RSPO membership, we estimate that the company would lose 30% of its global customers at the start of FY2016 (October 2015). All other variables and assumptions would remain the same as in the first scenario. We assume that KLK would not be able to cancel its supply contracts with external suppliers and would only be able to reduce costs of goods sold by 10%. The company would likely not be able to find buyers to fully make up for lost sales. Substitute buyers would account for 5% and 10 % of sales in 2016 and 2017 respectively.

Table 28 gives an overview of how this scenario would affect KLK's financial indicators.

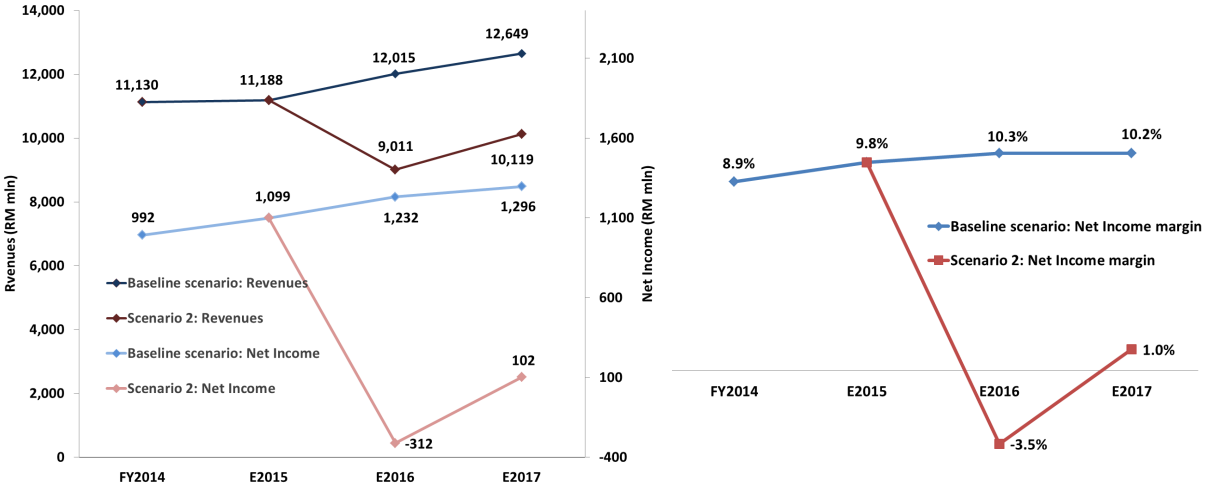
Table 28 Scenario 2: KLK loses RSPO membership and more customers

Indicator	Unit	FY2013	FY2014	FY2015	FY2016	FY2017
Sales	RM million	9,147.3	11,130.0	11,188.3	9,011.0	10,119.4
Net income	RM million	917.7	991.7	1,099.0	-311.8	101.8
Net income margin	%	10.0%	8.9%	9.8%	-3.5%	1.0%
Return on Assets	%	7.8%	7.7%	8.2%	-2.4%	0.8%
Return on Equity	%	12.2%	12.8%	13.6%	-4.0%	1.3%
Debt-equity ratio		0.50	0.61	0.59	0.63	0.65

Table 28 shows that in this second scenario, sales would drop significantly and the company would realize a negative net income of RM 311.8 million in 2016 and a slightly positive net income of RM 101.8 million in 2017. The net income margins would drop to -3.5% and 1.0% in 2016 and 2017 respectively. These figures would reduce dividends and earnings per share.

Return on Assets (ROA) and Return on Equity (ROE) would also drop significantly to -2.4% and -4.0% respectively in 2016. Given the company's low level of debt, and despite reduced income and retained earnings, KLK's capital structure would only change slightly. The company's debt-equity ratio would increase to 0.65 in 2017. The reduced level of cash flows in the following years would remain a concern for all stakeholders involved and could affect credit ratings further.

Figure 9 Scenario 2: KLK loses RSPO membership and more customers



4.5 Conclusions of the Financial Risk Assessment

As documented in our Sustainability Risk Assessment (chapter 2), KLK faces serious sustainability risks related to its own oil palm plantations (accounting for 57.5% of its profits before tax) and its external procurement of oil palm products (from which 68% of its total sales is derived). Given the strong trend towards sustainable procurement policies among major palm oil buyers, these sustainability risks could easily develop into financial risks as well.

To assess the possible financial impacts, we compared KLK's financial indicators in a baseline scenario for 2016 and 2017 with two alternative scenarios. The first scenario assumes that KLK's loses 20% of its total sales because customers implement No Deforestation policies. The second scenario assumes that KLK will lose its RSPO membership, which could result in losing 30% of its existing customers. Table 29 provides a summary of this scenario analysis.

Table 29 Kuala Lumpur Kepong: Summary of financial scenario analysis

Scenario		Baseline scenario		Scenario 1: Loss of non-deforestation customers		Scenario 2: Loss of RSPO membership	
Indicator	**Unit**	**FY2016**	**FY2017**	**FY2016**	**FY2017**	**FY2016**	**FY2017**
Sales	RM million	12,014.6	12,649.2	10,212.4	11,384.3	9,011.0	10,119.4
Net income	RM million	1,231.8	1,296.1	606.9	1,069.0	-311.8	101.8
Net income margin	%	10.3%	10.2%	5.9%	9.4%	-3.5%	1.0%
Return on Assets	%	8.8%	8.9%	4.4%	7.5%	-2.4%	0.8%
Return on Equity	%	14.5%	14.5%	7.3%	12.3%	-4.0%	1.3%
Debt-equity ratio		0.58	0.57	0.59	0.58	0.63	0.65

As shown in Table 29, in the baseline scenario, both KLK's sales and net income show a clear upward trend. The net income margin stays fairly constant at around 10.3%. Return on Assets remains stable around 8.9%, while Return on Equity stays at 14.5%.

In the first scenario, in which KLK loses 20% of its customers with No Deforestation policies, KLK would still generate a positive net income of RM 606.9 million in FY2016, slightly improving to RM 1,069.0 million in FY2017. As a consequence, the net income margins would be lower than in the baseline scenario: 5.9% in FY2016 and 9.4% in FY2017. These lower figures would reduce Return on Assets and Return on Equity as well, thereby having a negative impact on the underlying value of KLK's stock price.

In the second scenario, in which KLK loses its RSPO membership, sales would drop more significantly and the company would see a negative net loss of RM 311.8 million in 2016 and a small net profit of RM 101.8 million in FY2017. The net income margins would drop to -3.5% and 1.0% in FY2016 and FY2017 respectively. Return on Assets (ROA) and Return on Equity (ROE) would also drop significantly to -2.4% and -4.0% respectively in FY2016. Given the company's low level of debt, the company's debt-equity ratio could increase up to 0.65 in FY2017.

Based on our analysis of these different scenarios, we conclude that KLK faces serious financial risks by failing to address the sustainability risks related to its own plantations and to its external procurement of oil palm products. Ignoring these issues could reduce sales, net income and net income margins of KLK significantly, which would affect RoE and RoA and would undermine the underlying value of KLK's stock price.

Colophon

This report was authored by Jan Willem van Gelder, Albert ten Kate, Ben Cushing, Joel Finkelstein, Glenn Hurowitz, and Joeri de Wilde.

Chain Reaction Research
1320 19th Street NW
Washington, DC 20036
United States
Website: www.chainreactionresearch.com
Email: hurowitz@climateadvisers.com

Disclaimer

Appendix 1 References

1 Kuala Lumpur Kepong, “Annual Report 2014”, December 2014, p. 1.

2 Kuala Lumpur Kepong Berhad (n.d.), “History”, http://bit.ly/1u5SLsi, viewed in January 2015.

3 Kuala Lumpur Kepong, “Milestones 1960 - 2012”, http://bit.ly/ZYC8Rr, viewed in January 2015.

4 Kuala Lumpur Kepong, “Company profile”, Bloomberg (http://www.bloomberg.com/quote/KLK:MK), Viewed in January 2015.

5 Kuala Lumpur Kepong, “Annual Report 2014”, December 2014, p. 151.

6 Kuala Lumpur Kepong, “Annual Report 2013”, December 2013, p. 21.

7 Kuala Lumpur Kepong, announcement Bursa Malaysia “Update on Collingwood Plantation Pte Ltd”, http://bit.ly/1rNZ5zk, 22 May 2014.
Batu Kawan, announcement Bursa Malaysia “Investment of 18% Equity Stake in Collingwood Plantations Pte Ltd, http://bit.ly/1mxBz4B, 22 May 2014.

8 Kuala Lumpur Kepong, “Annual Report 2014”, December 2014, p. 19.

9 Kuala Lumpur Kepong, “Annual Report 2014”, December 2014, p. 19 and 28.

10 Kuala Lumpur Kepong, “Annual Report 2014”, December 2014, p. 151-153.

11 KLK, “Investor Presentation ASEAN Conference, Credit Suisse”, http://bit.ly/1oncb2a, 10 – 11 January 2013.

12 Kuala Lumpur Kepong, “Annual Report 2014”, December 2014, p. 29, 47.

13 22.0% of 4.7 million tons of FFB. Kuala Lumpur Kepong, “Annual Report 2014”, December 2014, p. 27.

14 6.1% of 4.7 million tons of FFB.

15 Kuala Lumpur Kepong, “Annual Report 2014”, December 2014, p. 47, 152-153.

16 43% of 289,500 tons of PK.

17 Kuala Lumpur Kepong, “Annual Report 2014”, December 2014, p. 144.

18 RHB Research, “Kuala Lumpur Kepong - Decent Growth But Rich Valuations”, http://bit.ly/1u5sK8q. 6 June 2014.
AM Research, “KL Kepong”, http://bit.ly/WVT7mD, 17 April 2014.

19 RHB Research, “Visit Note Kuala Lumpur Kepong”, http://bit.ly/UJk5Mm, 21 March 2013.

20 Calculation based on the average price of CPO (RM 2,396/ton) and refined palm oil (RM 2,519/ton). Kuala Lumpur Kepong, “Annual Report 2014”, December 2014, p. 15.

21 RHB Research, “Visit Note Kuala Lumpur Kepong”, http://bit.ly/UJk5Mm, 21 March 2013.

22 KLK, “Investor Presentation ASEAN Conference, Credit Suisse”, http://bit.ly/1oncb2a, 10 – 11 January 2013; KLK, “Corporate Presentation - MPOC POTAP Interaction Session”, 27 October 2014, p. 8.

23 Kuala Lumpur Kepong, “Annual Report 2013”, December 2013, p. 45; Mitsui, “Presentation on Chemical Segment”, http://bit.ly/WYfMP9, 5 October 2011; KLK Oleo, “Our group of companies”, Website KLK Oleo (www.klkoleo.com.my/company/our-group-of-companies), Visited in September 2014.

24 KLK, “Announcement to Bursa Malaysia: proposed disposal of 20% equity interest in KLKPCL”, http://bit.ly/1yA5iTN, 8 January 2015.

25 KLK, “Announcement to Bursa Malaysia: Proposed acquisition of shares in Tensachem SA”, http://bit.ly/1tzMlOm, 11 August 2014.

26 Kuala Lumpur Kepong, “Annual Report 2013”, December 2013, p. 30; KLK, “Investor Presentation ASEAN Conference, Credit Suisse”, http://bit.ly/1oncb2a, 10 – 11 January 2013.; RHB Research, “Kuala Lumpur Kepong - Decent Growth But Rich Valuations”, http://bit.ly/1u5sK8q. 6 June 2014.

27 Kuala Lumpur Kepong, “Annual Report 2014”, December 2014, p. 131.

28 Kuala Lumpur Kepong “Annual Report 2014”, December 2014, p. 133.

29 PT Astra Agro Lestari Tbk, “annual report 2013”, http://bit.ly/1s6Zm1T, March 2014, page 6.

30 Kuala Lumpur Kepong “Annual Report 2013”, p. 43.

31 Wilmar International, “Sustainability dashboard, supply chain map”, http://bit.ly/15gcDgR, as viewed in 3 February 2015.

32 Musim Mas Group, “Mapping supply chain: a preliminary list of CPO suppliers”, http://bit.ly/1M1VDfST

33 Batu Kawan Berhad, “Annual Report 2013”, p. 115.

34 Kuala Lumpur Kepong, “Annual Report 2013”, p. 154.

35 Batu Kawan Berhad (n.d.), “History”, http://bit.ly/1zHsjHH, viewed on 21 June, 2014.

36 *Forbes* (2014, February), “Malaysia’s 50 Richest”.

37 Employees Provident Fund Malaysia, “Investment highlights”, http://bit.ly/1oZ2e2x, Viewed in January 2015.

38 Kuala Lumpur Kepong, “Annual Report 2013”, December 2013, page 34.

39 RSPO, “Principles and Criteria for the Production of Sustainable Palm Oil”, 25 April 2013, available at http://bit.ly/1tosTWh

40 Kuala Lumpur Kepong, media release “Major Growers Commit to No HCS Development as HCS Study Starts in Earnest”, 19 September 2014, available at http://bit.ly/1DHxTbJ

41 KLK, News release “KLK Clarifies Its Stand on Potential HCS Areas & New Developments”, 14 January 2015, http://bit.ly/15km9jK

42 Wilmar, “No Deforestation, No Peat, No Exploitation Policy”, http://bit.ly/1hDCOBB, 5 December 2013.
Golden Agri-Resources, presentation “High Carbon Stock Forest Conservation”, http://bit.ly/1lW0vZC, 12 February 2014.
Greenpeace, “The HCS Approach: No Deforestation in practice”, http://bit.ly/1FMFFDd, 10 March 2014.

43 Control Union, “Annual Surveillance Assessment Report, Changkat Chermin palm oil mill”, http://bit.ly/1rQBahr, September 2014.

44 Landsat family.

45 RSPO, “NPP Notification KLK - PT Tekukur Indah”, 16 October 2014, available at http://bit.ly/1IvjAtn

46 Kuala Lumpur Kepong, “Proposed Acquisition of a subsidiary: PT. Karya Makmur Abadi”, http://bit.ly/1ixsiyG, 2 February 2007.

47 Greenpeace, report “P&G’s Dirty Secret”, http://bit.ly/1dwm2i0, February 2014, pages 20 and 21.

48 Comparison of OU habitat maps with Landsat 2013. Sources OU habitat: UNEP World Conservation Monitoring Centre, “World Atlas of Great Apes and their Conservation”, http://bit.ly/1lbGEQ2, 2005.

49 Kuala Lumpur Kepong, “KLK Response to RAN’s Report Titled “Conflict Palm Oil in Practice””, http://bit.ly/1q9VLAz, 8 April 2014.

50 Kuala Lumpur Kepong, “Proposed Acquisition of a subsidiary: PT Menteng Jaya Sawit Perdana”, http://bit.ly/1rBooEB, 2 February 2007.

51 Environmental Investigation Agency (EIA)/Telapak, report “Caught REDD handed”, http://bit.ly/1pQNhNn, June 2011.

52 Kuala Lumpur Kepong, “KLK Reply to Reuters”, http://bit.ly/1nGgIhN, 26 June 2011.

53 Comparison of OU habitat maps with Landsat 2013. Sources OU habitat: UNEP World Conservation Monitoring Centre, “World Atlas of Great Apes and their Conservation”, http://bit.ly/1lbGEQ2, 2005.

54 Greenpeace, report “P&G’s Dirty Secret”, http://bit.ly/1dwm2i0, February 2014, pages 22 and 23.

55 Kuala Lumpur Kepong, “KLK Response to RAN’s Report Titled “Conflict Palm Oil in Practice””, http://bit.ly/1q9VLAz, 8 April 2014.

56 KLK, press release "KLK joins other major palm oil industry players in significant sustainability initiative", 17 July 2014, available at http://bit.ly/1sOHVCU
Kuala Lumpur Kepong, Sime Darby Plantation, IOI Corporation Berhad, Musim Mas Group, Asian Agri, Apical and Cargill, "Sustainable Palm Oil Manifesto", July 2014, available at http://bit.ly/10r2ex6

57 RSPO, "Principles and Criteria for the Production of Sustainable Palm Oil", 25 April 2013, available at http://bit.ly/1tosTWh

58 Comparison of peatland map with Landsat 2013. Source peatland map: Wetlands International - Indonesia Programme & Wildlife Habitat Canada (WHC), "Map of Peatland Distribution Area and Carbon Content in Kalimantan, 2000 – 2002", http://bit.ly/1hc6CSo, 2004.

59 RSPO, "Manual on Best Management Practices for existing oil palm cultivation on peat", June 2012, available at http://bit.ly/1FUCTfh

60 RSPO, "Manual on Best Management Practices for existing oil palm cultivation on peat", June 2012, available at http://bit.ly/1FUCTfh

61 Central Agency for Statistics in the Netherlands, "Emissions passenger cars in 2013", http://bit.ly/1zf8cj8, http://bit.ly/1IyzRM3, as viewed on 9 January 2015.

62 Kuala Lumpur Kepong, "Annual Report 2014", December 2014, pages 152 and 153.

63 Kuala Lumpur Kepong, "Annual Report 2014", December 2014, p. 29 and 37.

64 Kuala Lumpur Kepong, "Annual Report 2013", December 2013, p. 35.

65 Kuala Lumpur Kepong, "Annual Report 2014", December 2014, p. 29 and 37.

66 RSPO, prepared by Eco-Ideal Consulting Sdn. Bhd, report "Reducing Operational Emissions from Palm Oil Production – A compilation of case studies", 30 November 2013, http://bit.ly/1xDjHMV

67 Kuala Lumpur Kepong, "KLK Reply to Reuters", http://bit.ly/1nGgIhN, 26 June 2011.

68 Kuala Lumpur Kepong Berhad, "KLK reiterates strict zero burning policy and clarifies media reports identifying concession area as one of the hotspots", http://bit.ly/1rLBbob, 24 June 2013.
Kuala Lumpur Kepong Berhad, "Response to allegations in Jakarta Post article naming PT Adei as suspect in Riau forest fires", http://bit.ly/1rLATgT, 12 July 2013.

69 Jakarta Post, "Malaysian firm named suspect in Riau forest fires", http://bit.ly/1qnCs76, 12 July 2013.

70 Wall Street Journal, "Malaysian Plantation Managers Must Stay in Indonesia", http://on.wsj.com/1rMg2Zq, 25 October 2013.

71 Jakarta Post, "Malaysian arrested in forest fire case", http://bit.ly/1qUHNBE, 16 December 2013.

72 The Jakarta Post, "10 firms suspected of burning land in Riau", http://bit.ly/1udqbST, 23 February 2014.

73 Tribun Pekanbaru, "PT Adei Didakwa Mengelola 541 Ha Lahan Mengatasnamakan Koperasi Jumat", http://bit.ly/1of95kn, 9 May 2014.
Riau Pos, "PT Adei Didakwa Kelola 541 Ha Tanpa Izin", http://bit.ly/1njoiNc, 9 May 2014.

74 Corruption Trial Team Riau, http://bit.ly/1mKDMhv, 16 June 2014.

75 Mongabay, "Kisah Hakim Bebaskan Terdakwa Kasus Perkebunan Ilegal PT Adei Pelalawan Riau (Bagian 1 dari 2 Tulisan)", http://bit.ly/1q7RNnl, 24 July 2014.

76 Tribun Pekanbaru, "Jaksa Sampaikan Kasasi atas Putusan Bebas Kasus IUP PT Adei Plantation", http://bit.ly/1ou1wss, 8 August 2014.

77 Jakarta Post, "Malaysian firm fined, executives get prison for role in forest fires", 11 September 2014, available at http://bit.ly/1ywJoUh

78 Kuala Lumpur Kepong, "Proposed Joint Venture between KLK Agro Plantations Pte Ltd (KLK Agro), a wholly-owned subsidiary of KLK, Equatorial Palm Oil plc (EPO), Equatorial Biofuels (Guernsey) Limited (EBGL) in Liberian Palm

Developments Ltd (LPD or JVCO)", http://bit.ly/1n2wn9A, 11 April 2014.
Equatorial Palm Oil plc, "JV Agreement, Funding & Board Appointment", http://bit.ly/1q2LJPi, 11 April 2014.

79 Equatorial Palm Oil Plc, "AIM Admission Document", 22 November 2009, page 50, available at http://bit.ly/12H5VQf

80 Equatorial Palm Oil, investor's presentation "African sustainable palm oil producer", http://bit.ly/1i4UsjK, March 2014.

81 Government of Liberia, "An Act to Ratify Concession Agreement between the Republic of Liberia and LIBINC Oil Palm Inc", http://bit.ly/1i7Fzh9, 22 May 2008.
Government of Liberia, "An Act Ratifying the Investment Agreement between the Republic of Liberia and Liberia Forest Products Inc, http://bit.ly/1l1VEnP, 22 May 2008.

82 Equatorial Palm Oil – LIBINCO, "New Planting Procedures Public Notification", 08 December 2014, http://bit.ly/1zxIJ5i

83 Government of Liberia, "An Act to Ratify Concession Agreement between the Republic of Liberia and LIBINC Oil Palm Inc", http://bit.ly/1i7Fzh9, 22 May 2008.
Government of Liberia, "An Act Ratifying the Investment Agreement between the Republic of Liberia and Liberia Forest Products Inc, http://bit.ly/1l1VEnP, 22 May 2008.

84 Equatorial Palm Oil Plc, "AIM Admission Document", 22 November 2009, page 19, available at http://bit.ly/12H5VQf

85 Global Witness, Friends of the Earth, FERN, Save my Future Foundation (SAMFU), Social Entrepreneurs for Sustainable Development (SesDev), and Sustainable Development Institute (SDI), press release "UK's Equatorial Palm Oil accused of human rights abuses in Liberia", http://bit.ly/1bUBnuk, 20 December 2013.

86 Equatorial Palm Oil plc, "response to letter by Global Witness of 11 December 2013, http://bit.ly/1lv7wzI, 17 December 2013

87 Sustainable Development Institute, "Community Complaint against Equatorial Palm Oil", http://bit.ly/1oAJ6XG, 2 October 2013.

88 Jacinta Fay and Silas Kpanan' Ayoung Siakor, Sustainable Development Institute/Friends of the Earth, article in The Ecologist "Liberia - communities join to fight the palm oil land grab", http://bit.ly/1tynZV3, 18 July 2014.

89 RSPO, "Complaint on Equatorial Palm Oil Plc", http://bit.ly/15cBLEZ, as viewed on 22 January 2015.

90 Friends of the Earth International, "Land grabbing in Liberia: Tell Equatorial Palm Oil NO means NO!", http://bit.ly/Tq6R7d, May 2014.

91 Equatorial Palm Oil, "Equatorial Palm Oil Response To Newspaper Article", http://bit.ly/1woiEUT, 3 June 2014.

92 Joint Press Release: Sustainable Development Institute, Fern, Rainforest Rescue, Forest Peoples Programme, Global Witness, Synchronicity Earth, "Communities protest that UK's Equatorial Palm Oil is poised to seize land in Liberia", http://bit.ly/1lMGCSy, 24 June 2014.

93 Equatorial Palm Oil – LIBINCO, "New Planting Procedures Public Notification", 08 December 2014, http://bit.ly/1zxIJ5i

94 Kuala Lumpur Kepong, "Proposed acquisition of shares in Liberian Palm Developments Ltd (LPD) and Equatorial Palm Oil Plc (EPO)", http://bit.ly/1pCnpGj, 7 November 2013.

95 Equatorial Palm Oil Plc, "2013 Annual Report and Accounts", http://bit.ly/1skPV1f, April 2014.

96 Golden Veroleum Liberia, "Concession agreement between Golden Veroleum Liberia and the Government of the Republic of Liberia", http://bit.ly/1wLsDmP, September 2010.
Equatorial Palm Oil Plc, "AIM Admission Document", 22 November 2009, page 19, available at http://bit.ly/12H5VQf
Land Commission of Liberia, report prepared with the support of EU Project FED/2011/270957 by Paul De Wit, Consultant, "Land Inventory and Land Management Planning in Sinoe County", http://bit.ly/1lxqRjY, September 2012, page 17.

97 IUCN Red List of Threatened Species, "Pan troglodytes ssp. Verus", http://bit.ly/VO6Bze, as viewed on 25 August 2014.

98 Oryx – The International Journal of Conservation, research paper by Clement G. Tweh, Menlasi M. Lormie,Hjalmar S. Kűhl and Jessica Junker (Max Planck Institute for Evolutionary Anthropology), Céleastin Y. Kouakou (Wild Chimpanzee Foundation), Annika Hillers (The Royal Society for the Protection of Birds), "Conservation status of chimpanzees Pan troglodytes verus and other large mammals in Liberia", http://bit.ly/1tPtjm6, 9 April 2014.

99 Science 342: 850–53, Hansen, M. C., P. V. Potapov, R. Moore, M. Hancher, S. A. Turubanova, A. Tyukavina, D. Thau, S. V. Stehman, S. J. Goetz, T. R. Loveland, A. Kommareddy, A. Egorov, L. Chini, C. O. Justice, and J. R. G. Townshend. 2013. "High-Resolution Global Maps of 21st-Century Forest Cover Change", 15 November 2013, available at http://bit.ly/1dkQMUb.

100 Golden Veroleum, NPP-notification "Tartweh-Kabada- Nitrian (TKN), Summary Report of Planning & Management", 22 September 2014, http://bit.ly/1tL2nrs

101 Kuala Lumpur Kepong, "Annual Report 2013", December 2013, page 19.

102 Joint Communiqué by the Chiefs of Collingwood Bay Issued at Wanigela 24th January 2010 under the authority vested in the Traditional paramount chiefs of the 9 tribes of Collingwood Bay representing 326 clans.

103 Oro Community Environmental Action Network (OCEAN) and Collingwood Bay Conservation and Development Association (CCADA), "RSPO Complaint against KLK", http://bit.ly/1mMV3XK, 19 April 2013.

104 Complaints Panel of the RSPO, letter to KLK "RE: Complaint Collingwood Plantation Pte Ltd", http://bit.ly/1lqWl5J, 2 January 2014.

105 National Court of Justice at Waigana Papua New Guinea, "Ruling on Special Agriculture and Business Leases Collingwood Bay area", http://bit.ly/1mxJX44, 20 May 2014.

106 KLK, announcement Bursa Malaysia "Update on Collingwood Plantation Pte Ltd", http://bit.ly/1rNZ5zk, 22 May 2014.
Batu Kawan, announcement Bursa Malaysia "Investment of 18% Equity Stake in Collingwood Plantations Pte Ltd, http://bit.ly/1mxBz4B, 22 May 2014.

107 RSPO Complaints Panel, letter to KLK "RE: Complaint - Collingwood Plantation Pte Ltd/Kuala Lumpur Kepong Bhd", 5 August 2014.

108 RSPO, "Complaint on: Collingwood Plantation Pte Ltd / Kuala Lumpur Kepong Bhd", http://bit.ly/1zw8Fyb, as viewed on 21 January 2015.

109 Aidenvironment, "Rapid compliance assessment against RSPO and the Manifesto Lot 5, Collingwood Bay", 8 October 2014, http://bit.ly/1wicrGQ

110 Rainforest Action network, blog by Lester Seri, Maisin landowner in Collingwood Bay and Coordinator for Oro Communities Environmental Advocacy Network (OCEAN) Inc., "Tell KLK to Leave Collingwood Bay Now!", 22 October 2014, available at http://bit.ly/1z1TyM0

111 Friends of the Orangutans, "Petition on change.org", http://chn.ge/1ysjFIW, as viewed on 24 October 2014.

112 Control Union, "Annual Surveillance Assessment Report, Changkat Chermin palm oil mill", http://bit.ly/1rQBahr, September 2014. PT. Mutuagung Lestari, "Assessment report Mandau POM and Mandau Estate", http://bit.ly/1k6Shxb, 18 October 2012, page 43.

113 GoRiau, "Ratusan Warga Demo PT Adei Plantation, http://bit.ly/1rq3CXS, 27 March 2013.

114 GoRiau, "Tuntut Kejelasan dari PT Adei, Warga Telayap Kembali Gelar Demo", http://bit.ly/1rq5LTw, 27 June 2014.
MediaCenterRiau, "Pemkab Pelalawan Komit Tuntaskan Sengketa Lahan", http://bit.ly/1oLraby, 14 July 2014.
Mutuagung Lestari, "assessment report for Nilo 1 POM", http://bit.ly/1vGEX7P, September 2013, page 15.

115 Riau Terkini, "Minta Dikembalikan ke Masyarakat, Komisi I DPRD Pelalwan Gelar Hearing dengan PT Adei Plantation", 12 January 2015, http://bit.ly/1zt2vi6

116 Riau People, "Jual Mobil Baru dan Bekas di Pekanbaru Riau berita riau Aliansi Dumai: Tutup PT Kuala Lumpur Kepong", 16 September 2014, http://bit.ly/1ykvgMh
Trans Riau, "Unjuk Rasa, Ribuan Warga Desak Tutup PT KLK", 11 August 2014, http://bit.ly/1DXblGz

117 Sawitwatch, "Perbudakan di Perkebunan Kelapa Sawit di Kaltim", http://bit.ly/1rlVzeC, published January 2012.

118 Kuala Lumpur Kepong, "KLK's Response to RAN's Report on Conflict Palm Oil", http://bit.ly/1q9VLAz, 8 April 2014.

119 Rainforest Action Network, "RAN's Assessment of KLK's Statement of Response", 9 May 2014.
Rainforest Action Network, report "Conflict Palm Oil In Practice: Exposing KLK's role in Rainforest Destruction, Land Grabbing and Child Labor", http://bit.ly/1q9Xndq, 2 April 2014.

120 Rainforest Action Network, “Exposed: Child Labor in the US Food Supply”, http://bit.ly/1mAeiPs, 30 July 2013.
Rainforest Action Network, report “Conflict Palm Oil In Practice: Exposing KLK’s role in Rainforest Destruction, Land Grabbing and Child Labor”, http://bit.ly/1q9Xndq, 2 April 2014.

121 Kuala Lumpur Kepong, “KLK’s Response to RAN’s Report on Conflict Palm Oil”, http://bit.ly/1q9VLAz, 8 April 2014.

122 Kuala Lumpur Kepong, “KLK’s Response to RAN’s Report on Conflict Palm Oil”, http://bit.ly/1q9VLAz, 8 April 2014.

123 Kuala Lumpur Kepong, “KLK Sustainability policy”, 1 December 2014, http://bit.ly/1sVA89Z

124 MCR MediaCenterRiau, “Disnakertrans Pelalawan Eksekusi Perusahaan Langgar Undang-undang”, http://bit.ly/1ltH9t1, 27 April 2014.
Iyaa.com, “Disnaker Hukum Pengusaha Bayar Gaji Buruh Rendah”, http://bit.ly/1mjBHo6, 27 April 2014.

125 Indonesia Plantation Workers Union (SBPI), “Hundreds of Casual Workers of Langkat Nusantara Kepong Company Rally for their Rights”, http://bit.ly/1kyK934, 17 August 2012.
SumutPos, “Karyawan PT LNK Mengadu ke DPRD Langkat”, http://bit.ly/1qei0Cl, 14 March 2012.
SumutPos, “Ratusan Karyawan Langkat Nusantara Kepong Mogok Kerja Selasa”, http://bit.ly/1qGbEOe, 6 March 2012.
Eksposnews, “Karyawan Langkat Nusantara Kepong Mogok Kerja Jumat”, http://bit.ly/1raltmS, 14 October 2011.

126 Hutan Rakyat Institute, “Laporan Investigasi Implementasi Prinsip dan Kriteria RSPO tentang Perburuhan di Perkebunan Sawit Anggota RSPO”, http://bit.ly/1r6L8vp, October 2013.

127 Annual reports 2013 by these companies.

128 For Plantation Business Permits issued after February 2007 plantation companies are obliged to facilitate the development of community gardens OUTSIDE the permitted area for at least 20% (twenty percent) of the total permitted area. Source: Ministry of Agriculture, “Regulation 98/2013, guidelines for the licensing of plantations”, http://bit.ly/1oIKtAn, 30 September 2013.
Plantation companies holding a Plantation Business Permit (IUP; Ijin Usaha Perkebunan) shall provide surrounding communities with plantation areas equalling a minimum of 20 per cent of total area managed. Source: Indonesian Ministry of Agriculture, “Regulation 26/2007, guidelines for the licensing of plantations”, http://bit.ly/QUlXQT, 28 February 2007, article 11.

129 Kuala Lumpur Kepong, “Annual Report 2014”, December 2014, page 28.

130 Kaltim Post, “Wujudkan 8.472 Hektare Kebun Plasma”, 18 december 2014, http://bit.ly/1xplDb4

131 PT Mutuagung Lestari, “RSPO Assessment report Nilo 1 POM”, September 2013, http://bit.ly/1vGEX7P
PT Mutuagung Lestari, “RSPO Assessment report Nilo 2 POM”, September 2013, http://bit.ly/1yDhHtq

132 PT Mutuagung Lestari, “RSPO Assessment report PT Sekarbumi Alamlestari, Tapung Kanan POM”, 6 May 2014, http://bit.ly/1xOXbig

133 Presiden Republik Indonesia, “Regulation 60/2012, amendment of No. 10 of 2010, procedures for change to the allocation and function of forestlands”, http://bit.ly/1mYAiWI, 6 July 2012.
Aidenvironment, unpublished report for ClimateWorks Foundation - Climate and Land Use Alliance (CLUA), “State revenue losses caused by unauthorized oil palm plantation expansion in the forestlands of West and Central Kalimantan in 2005-2011”, May 2013.

134 Land Use Designation, Ministry of Forestry (529 Central Kalimantan), 2013. Land Use Designation, Ministry of Forestry (936 West Kalimantan), 2013. Land Use Designation, Ministry of Forestry (Riau province Sumatra). Areas less than 500 ha have not been taken into account. Land Use Designation maps on Belitung could not be found due to the lack of publicly available concession maps.

135 Ministry of Forestry, “Application for forest release permit with regard to PP 60/2012”, http://bit.ly/1mIFZb0, 4 October 2013.

136 RSPO, NPP Notification “PT Anugrah Surya Mandiri - Summary Report of SEIA & HCV”, 8 April 2013, available at http://bit.ly/1yZe3aE

137 PT SAI Global, “Public announcement upcoming ISPO-audit PT Parit Sembada and PT Agro Makmur Abadi”, http://bit.ly/1rVjQfz, February 2014.

138 PT Mutuagung Lestari, “RSPO Assessment report Nilo 1 POM”, September 2013, http://bit.ly/1vGEX7P

139 PT Mutuagung Lestari, “Public announcement upcoming ISPO-audit PKS Berau – PT Hutan Hijau Mas, PT Satu Sembilan Delapan dan PT Malindomas Perkebunan”, http://bit.ly/1llerY2, February 2014.

140 Kuala Lumpur Kepong, “Annual Report 2014”, December 2014, p. 120.

141 PT Astra Agro Lestari Tbk, “Annual Report 2012”, April 2013, p. 116.

142 PT Austindo Nusantara Tbk., “Consolidated Financial Statements June 30, 2014”, August 2014, p. 72.

143 Dharma Satya Nusantara, “PT DSN Tbk 2014 Operating Results Update”, 30 January 2015, p. 9.

144 Jakarta Globe, “RSPO Wants to Add More Members From Indonesia”, http://bit.ly/1ojK6Jy, 29 January 2014.

145 PT Astra Agro Lestari Tbk, “Annual Report 2013”, http://bit.ly/1s6Zm1T, March 2014, page 6.

146 KLK, announcement on Bursa Malaysia, “sales of palm oil to a related party, Mitsui & Co (Asia Pacific) Pte Ltd., 12 December 2014, http://bit.ly/1siYBWO

147 PT Astra Agro Lestari, “Quarterly reports 2014 (until 3th quarter)”, http://bit.ly/10jDs1f

148 Announcement by KLK on 10 November 2014: http://bit.ly/1x21Ilz

149 Volkskrant, “G20 klaar voor aanpak belastingontwijking”, *Volkskrant,* 2 september 2013; G8 UK, “Trade, Tax & Transparency, The 2013 UK G8 Presidency Report”. UK Government website (http://www.gov.uk/government/publications/uk-g8-presidency-report-2013), 19 December 2013.

150 Volkskrant, “Brussel maakt jacht op brievenbusfirma’s”, *Volkskrant,* 25 november 2013 (http://www.volkskrant.nl/vk/nl/2800/Europese-Unie/article/detail/3550609/2013/11/25/Brussel-maakt-jacht-op-brievenbusfirma-s.dhtml).

151 OECD, “Action Plan on Base Erosion and Profit Shifting”, *OECD,* July 2013 (http://www.oecd-ilibrary.org/docserver/download/2313331e.pdf?expires=1386162851&id=id&accname=guest&checksum=B62342136F8D08084CDC2E67BA11397A).

152 OECD, “Addressing Base Erosion and Profit Shifting”, *Organisation for Economic Co-operation and Development (OECD)*, February 2013.

153 Kuala Lumpur Kepong, “Annual Report 2012”, December 2012, p. 18 and 119.

154 HM Revenue & Customs, “CG42110 - Non-resident company with a UK permanent establishment: gains on disposals”, *Website HM Revenue & Customs (www.hmrc.gov.uk/manuals/cgmanual/CG42110.htm)*, Viewed in October 2014; KPMG, "Corporate tax rates table ", KPMG website (www.kpmg.com/global/en/services/tax/tax-tools-and-resources/pages/corporate-tax-rates-table.aspx), Viewed in October 2014.

155 KLK, press release “KLK joins other major palm oil industry players in significant sustainability initiative”, http://bit.ly/1sOHVCU, 17 July 2014.
Sustainable Palm Oil Manifesto, July 2014, available at http://bit.ly/1rRzUux

156 Kuala Lumpur Kepong, “KLK Sustainability policy”, 1 December 2014, http://bit.ly/1sVA89Z

157 Wilmar, news release “Wilmar International Announces Policy to Protect Forests and Communities”, http://bit.ly/IOviVF, 5 December 2013.
Wilmar, “No Deforestation, No Peat, No Exploitation Policy”, http://bit.ly/1hDCOBB, 5 December 2013.

158 Wilmar, news release “Wilmar International Announces Policy to Protect Forests and Communities”, http://bit.ly/IOviVF, 5 December 2013.
Wilmar, “No Deforestation, No Peat, No Exploitation Policy”, http://bit.ly/1hDCOBB, 5 December 2013.

159 Greenpeace, Press release “Greenwash alert as palm oil companies sign onto continued deforestation”, http://bit.ly/1B833Zs, 11 July 2014.
Rainforest Action Network, “New Palm Oil 'Talk and Log' Initiative a Step Backward for Responsible Supply Chains”, http://bit.ly/1n2SUs5, 11 July 2014.

160 KLK, News release “KLK Clarifies Its Stand on Potential HCS Areas & New Developments”, 14 January 2015, http://bit.ly/15km9jK
Greenpeace, “The HCS Approach: No Deforestation in practice”, http://bit.ly/1FMFFDd, 10 March 2014.
Greenpeace, “Steering Group Established to Oversee the High Carbon Stock (HCS) Approach for Implementing ‘No Deforestation’ Commitments”, 16 September 2014, http://bit.ly/1uU77Zz

161 Wilmar, “No Deforestation, No Peat, No Exploitation Policy”, http://bit.ly/1hDCOBB, 5 December 2013.
Golden Agri-Resources, presentation “High Carbon Stock Forest Conservation”, http://bit.ly/1lW0vZC, 12 February 2014.
Greenpeace, “The HCS Approach: No Deforestation in practice”, http://bit.ly/1FMFFDd, 10 March 2014.

162 Kuala Lumpur Kepong, media release “Major Growers Commit to No HCS Development as HCS Study Starts in Earnest”, 19 September 2014, available at http://bit.ly/1DHxTbJ

163 HCS Study, “High Carbon Stock (HCS) Study of the Sustainable Palm Oil Manifesto”, 22 October 2014, http://bit.ly/1CSdlOT

164 Wilmar International, “Dashboard”, http://bit.ly/15gcDgR, as viewed on 30 January 2015.

165 Kuala Lumpur Kepong, “KLK Sustainability policy”, 1 December 2014, http://bit.ly/1sVA89Z

166 United Nations, International Labour Organization, “ILO Declaration on Fundamental Principles and Rights at Work and its Follow-up”, 18 June 1998 (Annex revised 15 June 2010), http://bit.ly/18nMoDX,.

167 Court of First Instance of the European Communities, press release “The Court of First Instance annuls the directive authorising paraquat as an active plant protection substance”, 11 July 2007, http://bit.ly/1itQUGn.

168 Arrow, the Asian-Pacific Resource and Research Centre for Women, “Labour, migration, gender, and sexual and reproductive healths and rights”, 2013, http://bit.ly/1DwVmh7
Center for Reproductive Rights, “Women of the World: Laws and Policies Affecting their Reproductive Lives East and Southeast Asia, Malaysia”, 1 July 2011, http://bit.ly/1AdcMwR

169 Kuala Lumpur Kepong, “Annual Report 2014”, December 2014, page 36.

170 Control Union, “Annual Surveillance Assessment Report, Changkat Chermin palm oil mill”, http://bit.ly/1rQBahr, September 2014.
RSPO, “Certified growers”, http://bit.ly/1xYFoKl, as viewed on 14 January 2015

171 RSPO, “Certified growers”, http://bit.ly/1xYFoKl, as viewed on 14 January 2015

172 Control Union, “Annual Surveillance Assessment Report, Changkat Chermin palm oil mill”, http://bit.ly/1rQBahr, September 2014.
RSPO, “Certified growers”, http://bit.ly/1xYFoKl, as viewed on 14 January 2015
RSPO, “Principles and Criteria Assessment Notification”, http://bit.ly/WN0gp3

173 Kuala Lumpur Kepong, “Annual Report 2014”, December 2014, p 18.

174 Kuala Lumpur Kepong, “Annual Report 2014”, December 2014, p 21.

175 Kuala Lumpur Kepong, “Annual Report 2014”, December 2014, p. 74 and 118.

176 Bursa Malaysia, Kuala Lumpur Kepong Berhad, “RAM Ratings Kuala Lumpur Kepong Corporate Profile”, http://bit.ly/1nOSreB, Viewed in January 2015.

177 Bursa Malaysia, Kuala Lumpur Kepong Berhad, “RAM Ratings Kuala Lumpur Kepong Corporate Profile”, http://bit.ly/1nOSreB, Viewed in January 2015.

178 Bloomberg, Viewed in January 2015.

179 The ratios are calculated by Bloomberg, using slightly different definitions than used by CRR in earlier tables in this report. Bloomberg, Viewed in January 2015.

180 TFT and Climate Advisers, press release “TFT and Climate Advisers Welcome Wilmar’s Transformative Policies to Protect Forests and People”, 5 December 2013, available at http://bit.ly/1rQ2f7S

181 Kuala Lumpur Kepong, “Annual Report 2014”, December 2014, page 36.

182 Additional output not derived from KLK's own mills will also be RSPO-certified, and is not accounted for in the calculation. Secondly, the figure of 640,000 tons per year is from late September 2014, while KLK has pledged to reach RSPO certification for all of its mills and supply bases by 2015. CRR expects that will fail to fulfil this pledge, but in practice at least some extra mills and supply bases will be RSPO certified by then.

183 RSPO, "New record sales of Certified Sustainable Palm Oil bridge the gap between supply and demand", 12 August 2014, available at http://bit.ly/1tmKklT

184 WWF-World Wide Fund for Nature, "2013 Palm Oil Buyers Scorecard', November 2013, available at http://bit.ly/1k0nEI7

185 BASF, press release "BASF launches diverse range of ingredients based on certified sustainable palm (kernel) oil", 17 February 2014, available at http://bit.ly/1vCRvLp