



Enough is enough

Time for the palm oil market to start the real work to stop driving deforestation



Investigative Report Eyes on the Forest

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Eyes on the Forest (EoF) was founded in 2004 by 3 NGOs in Riau, Sumatra: Walhi Riau, Jikalahari "Riau Forest Rescue Network" and WWF-Indonesia Central Sumatra Program. Its network members include KKI Warsi in Sumatra and Environmental Law Clinic, Lembaga Gemawan, Jari Indonesia Borneo Barat, Kontak Rakyat Borneo, POINT, Swandiri Institute, Yayasan Titian, Gapeta Borneo and WWF-Indonesia West Kalimantan Program in Kalimantan.

EoF investigates those who clear natural forests and grab land they do not own in Indonesia. The coalition also informs those who buy products made from commodities grown on these lands and those who regulate the use of these lands.

EoF website: <http://www.eyesontheforest.or.id>

EoF interactive map: <http://maps.eyesontheforest.or.id>

Email: [editor\(at\)eyesontheforest.or.id](mailto:editor(at)eyesontheforest.or.id)

Front cover photo: Aerial view of illegal oil palm plantations and a stretch of remnant forest in Tesso Nilo National Park. Photo taken by Eyes on the Forest at S0°5'59.59" and E101°36'44.94" on 21 November 2013 - almost five years ago.

Quote: EoF (2018) Enough is enough - time for the palm oil market to start the real work to stop driving deforestation. Investigative report.

Online: Check for this report and many related documents at www.eyesontheforest.or.id. Follow the tracks of illegal FFB and tainted CPO at maps.eyesontheforest.or.id.

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EXECUTIVE SUMMARY - Eyes on the Forest “Enough is Enough”, 2018

In May 2016, the Indonesian Ministry of Environment and Forestry (MoEF) set up a multi-stakeholder task force to revitalize Tesso Nilo National Park (TNNP) and the larger Tesso Nilo ecosystem. One of main objectives of the task force is to remove illegal oil palm plantations which occupy 75% of the national park, to ensure that CPO mills surrounding Tesso Nilo do not source FFB from illegal plantations, and to convince implicated companies to support rehabilitation and reforestation in Tesso Nilo. In support of the task force, Eyes on the Forest (EoF) investigated the flow of illegal FFB from TNNP in June, July and August 2017 to determine whether Indonesia’s “Big 4” - Wilmar, Musim Mas, Golden Agri-Resources and Royal Golden Eagle - followed the MoEF Secretary General’s order to stop buying FFB grown illegally in TNNP. All had been implicated in previous investigations and have been fully aware of the risks.

Indonesia’s palm oil industry has been at the center of the storm of the dramatic deforestation of the country. EoF satellite image analysis found that Sumatra's 44 million hectares mainland, covered by 25 million ha (57%) of natural forests in 1985, lost 56% of this forest over 31 years and by 2016 had only 11 million ha (25%) remaining.

Sumatra has been the main production hub for palm oil’s “Big 4”. They have almost half of the total refining capacity of Indonesia and Malaysia and are involved in more than 75% of global palm oil trade. Since 2013, the groups have published corporate zero deforestation policies and signed joint zero deforestation pledges, including in 2014 the United Nations Climate Summit “New York Declaration on Forests”, the Indonesian Palm Oil Pledge (disbanded after Government pressure in June 2016), and the Sustainable Palm Oil Manifesto. Today, 74% of the total refining capacity in the world’s two prime palm countries is operated by corporate groups with “No Deforestation No Peat No Exploitation” policies.

However, despite these impressive paper commitments, the region’s remaining ever smaller and ever more precious forest blocks continue to be converted to oil palm plantations. Many were some of the last remaining habitats of critically endangered species like tigers, elephants and orangutan, and on the easily flammable, carbon rich peatlands of Sumatra and Borneo. The fruit (FFB) of the mostly illegally developed oil palm plantations is bought by an ever-increasing number of CPO mills.

The palm oil industry’s continuous expansion of refining capacity keeps increasing the demand for CPO and ultimately, FFB. EoF investigative results and the presence of independent mills in their supply chains are indications that the Big 4 do not control enough FFB of known legal and sustainable origin and have to rely heavily on unproven supplies from third party producers and agents. Interestingly, when EoF contacted the Big 4 about the percentage of third party supplies entering their processing facilities and overall FFB traceability, they either did not provide data (Wilmar) or stated these data were not yet available. Combined with the widespread illegality of oil palm plantation development in Riau and the Big 4’s and others’ lack of systems to trace FFB, the forests keep falling and the world’s palm oil products continue to be vulnerable to being tainted by illegal FFB.

Agents and third-party CPO mills are the weakest points in the system. EoF findings show that agents delivering FFB to CPO mills know about the illegality of the FFB they trade and try to hide its true origin by for example claiming that they come from a legal oil palm plantation, by driving longer routes before delivering it, or changing license plates on their trucks. The findings highlight how critically important it is for CPO mills to trace the real

origins of the FFB delivered to their mills by agents so that illegally and unsustainably produced/harvested FFB can be identified, separated and rejected.

Current efforts are not enough. FFB tracing data required from agents by companies like Apical and Wilmar are not sufficient. Wilmar's current approach to tracing its supplies back to the plantation does not require agents to report "GPS" or "planted area" for the FFB they supply. The likelihood of agents delivering illegal and/or unsustainable FFB gets higher with more and more illegal FFB coming online as illegally established plantations become mature, with illegal growers unable to easily sell their product directly at market prices, with agents trying to find as much and as cheap FFB as possible to increase their margins, and with mills reluctant to reject illegal FFB or even put strong measures into place to identify it because they need to fill their FFB supply gaps.

Without the Big 4 truly committing to no longer buy and sell illegal product and establish fool proof systems to achieve 100% FFB traceability, and without the Big 4 committing to only expand their capacities according to the availability of legal FFB and CPO they can control, rather than the vast quantities of illegal FFB and CPO floating in the market, they will continue to deliver illegal and tainted product to the world. Their commitments to conservation and zero deforestation policies will sound ever hollower as their CEOs battle for position in Forbes' list of palm oil billionaires. The companies have to seriously invest into ensuring the legality of their supplies and they are clearly not doing enough.

How easily tainted CPO from just a few mills in one area can pollute the world's palm oil supplies became clear in EoF's random investigations. Since 2011, EoF identified 22 CPO mills purchasing illegal FFB harvested inside the Tesso Nilo and the Bukit Tigapuluh landscapes. EoF found the Big 4 to continue to be implicated in the trade of illegal FFB and tainted CPO from the two areas in 2017.

In its 2016 report, EoF wrote that "No One is Safe" from purchasing tainted palm oil products. This year, in addition to the Big 4, EoF found the 21 of the 22 implicated mills to be among the direct or indirect suppliers of many of the world's key traders and users with zero deforestation commitments: AAK, ADM, Bunge, Cargill, Colgate-Palmolive, General Mills, Kellogg's, Mars, Mondelēz, Neste, Nestlé, Olam, PepsiCo, Proctor & Gamble, Reckitt Benckiser and Unilever. Some of these buyers were found to buy palm oil from the implicated mills via their direct suppliers including AAK, ADM, RGE (as Apical), Cargill, Bunge Loders Crocklaan, Fuji Oil, GAR, Musim Mas (as ICOF), IOI, Louis Dreyfus, Sime Darby Plantation and Wilmar. Through the tainted products they buy, they are all linked to the deforestation of central Sumatra. EoF believes that its investigations just show the tip of the iceberg. In the absence of purchasing filters at the CPO mill level similar use of illegally grown FFB likely occurs throughout the country, contaminating many more global supply chains. EoF appreciates the new supply chain transparency of the companies named in this report – but what's next? EoF hopes that the connections identified by our investigation will help companies develop legal supply chains by eliminating FFB produced illegally or in violation of zero deforestation commitments at plantation level from their supply chains.

After years of commitments, markets are still encouraging the conversion of forests to oil. Buzzwords like "risk mapping" and "jurisdictional approach" are the current fashion. But "Enough is enough", the real work to stop driving deforestation has to start. In the eighth year since the industry's first zero deforestation policy, there is a clear need for industry and civil society to review all the supply chain work and its real achievements on the ground; to redirect efforts to achieve the purpose why zero deforestation commitments were ever

“created”: to stop the loss of the remaining High Conservation Value and High Carbon Stock areas, like Sumatra’s lowland forests in Tesso Nilo and Bukit Tigapuluh; and to address palm oil’s legacy and begin restoring some of the most precious conservation areas. EoF has compiled specific recommendations in the “Conclusions & Recommendations” section.

INTRODUCTION

Indonesia's palm oil industry has been at the center of the storm of the dramatic deforestation of the country. EoF satellite image analysis found that Sumatra's 44 million hectares mainland, covered by 25 million ha (57%) of natural forests in 1985, lost 56% of this forest over 31 years and by 2016 had only 11 million ha (25%) remaining.

Sumatra has been the main production hub for palm oil's "Big 4" – Wilmar, Musim Mas, Golden-Agri-Resources (GAR) and Royal Golden Eagle (Asian Agri and Apical) - with a combined refining capacity of 33.2 million MT/year, almost half (46%) of Indonesia and Malaysia's total refining capacity¹. According to 2016 data, Wilmar, Musim Mas and GAR controlled 75% of global palm oil trade². Since 2011, the groups have published corporate zero deforestation policies^{3, 4, 5, 6, 7} and signed joint zero deforestation pledges with many other companies, including in 2014 the United Nations Climate Summit "New York Declaration on Forests"⁸, the Indonesian Palm Oil Pledge (disbanded due to Government pressure in June 2016)⁹, and the Sustainable Palm Oil Manifesto^{10, 11}. Today, 74% of the total refining capacity in the world's two prime palm countries is operated by corporate groups with "No Deforestation No Peat No Exploitation" policies¹².

However, despite these impressive paper commitments, the region's remaining ever smaller and ever more precious forest blocks continue to be converted to oil palm plantations and their fruit (FFB) are bought by crude palm oil (CPO) mills - whether the areas were protected by government or not.

Riau, Indonesia's top palm oil producing and exporting province has been plagued with deforestation for development of often illegal oil palm plantations for years. Between 2011 and 2015, WWF-Indonesia and the Eyes on the Forest (EoF) coalition conducted random investigations of the supply chains of illegally grown oil palm fruit (FFB) from Tesso Nilo National Park (TNNP) (Map 1) and "Bukit Batabuh Tiger Corridor (BBTC)" and their surrounding "Forest Estates" (Box 1). These investigations have shown many companies, including the Big 4, to be involved in the trade of illegal FFB from these areas and/or of tainted CPO or other palm oil products which may have been "contaminated" when illegally grown FFB were milled and the oil was bulked with other supplies for shipment and/or further processing^{13, 14, 15}. WWF and EoF have alerted the Big 4 many times to these facts.

EoF found that the Big 4 do not know the origin of the FFB for the majority of the CPO they refine. Without that knowledge, the implementation of their respective zero-deforestation policies is not possible. During many conferences and in replies to EoF's 2016 "No one is safe" report, all groups commented on the complexity of achieving 100% FFB traceability and filtering illegal FFB supplies out of their supply chains¹⁶. The Big 4 thus know they are directly or indirectly responsible for destruction of Indonesia's last remaining High Conservation Value, High Carbon Stock forest blocks. Palm oil is big business, having easily generated places among Forbes' lists of top billionaires for group owners. But to avoid reputational and legal risks companies also have to make the investments necessary to safeguard their supply chains and exclude illegal FFB and tainted CPO.

The history of oil palm plantation development in Riau Province, still the main production province for the industry, has been plagued with illegality and corruption. In 2009, Riau's provincial and district plantation agencies recorded 2.6 million ha of oil palm plantation area. In 2010, the Riau Governor at the time (Rusli Zainal, later jailed for pulp & paper industry related corruption) proposed 3.5 million hectares of Forest Estate to become Non-Forest Estate, a lot of it supposedly already planted with illegal palm oil plantations at the time.

Then Minister of Forestry (Zulkifli Hasan) launched an investigation of the proposal and in 2012 agreed to less than half of the proposed zoning change, 1,638,249 hectares. Only two years later, in 2014, the same Minister admitted that 50%, or two million hectares, of all oil palm plantations in Riau were “illegal or had no permit”¹⁷ and issued a Decree (Number 673/Menhut-II/2014 dated August 8, 2004¹⁸) to legalize the 1,638,249 hectares of illegal oil plantations by changing their zoning from Forest Estate¹⁹ to Non-Forest Estate. Four days before the same Minister issued a related Decree (Number 878/Menhut-II/2014 dated 29 September 2014)²⁰, then Governor of Riau (Anas Maamun) was caught red-handed by Indonesia’s KPK (Corruption Eradication Commission) for allegedly receiving bribes from palm oil plantation businessmen and companies in favor of his effort to lobby the then Minister of Forestry for accepting their proposal to change the zoning of Forest Estates. He was sentenced to 7 years in prison for the alleged corruption.

A 2016 EoF investigation²¹ of 26 oil palm plantations including some by Wilmar and GAR covering in total around 100,000 ha of the above mentioned 1,638,249 found many illegalities and irregularities. EoF recommended that the Ministry of Environment and Forestry (MoEF) revokes the two 2014 Decrees mentioned above and take enforcement actions against palm oil companies which had illegally occupied Forest Estates and developed oil palm plantations therein before the issuance of the two Minister of Forestry Decrees.

The industry’s over capacity of refining facilities without assured sources of known origin CPO and its resulting heavy reliance on unknown third party supplies, combined with the widespread illegality of oil palm plantation development in Riau and the lack of systems to trace FFB by the Big 4 and others, have made the majority of the world’s palm oil supplies vulnerable to palm products tainted with illegally grown FFB, produced in some of the last remaining habitats of critically endangered species like tigers, elephants and orangutan, and on the easily flammable, carbon rich peatlands of Sumatra and Borneo.

Shortly after EoF’s 2016 “No one is safe” report highlighted again the trade of illegal FFB and tainted CPO from TNNP and its surrounding Forest Estates, the MoEF ramped up its efforts by setting up a multi-stakeholder task force for Tesso Nilo Ecosystem Revitalization (Revitalisasi Ekosistem Tesso Nilo, RETN), composed of MoEF, Riau Provincial Government and NGOs including EoF members and Mitra Insani. The main objectives of the RETN task force are to:

- revitalize the “Tesso Nilo ecosystem”, including TNNP and the adjacent Forest Estates by removing illegal oil palm plantations which occupy more than 75% of TNNP alone (RETN task force’s survey in 2017) (Map 1),
- ensure that CPO mills surrounding the Tesso Nilo ecosystem do not source FFB from illegal plantations in the ecosystem, and
- convince nearby and implicated companies to support rehabilitation and reforestation in the ecosystem.

Several actions were taken by the RETN task force related to sourcing of illegal FFB from the ecosystem:

- 15 July 2016: The Directorate General of MoEF’s Law Enforcement submitted a letter to Indonesian Palm Oil Association (GAPKI) and Roundtable on Sustainable Palm Oil (RSPO), urging both groups to require their members not to purchase illegal FFB and/or tainted CPO.
- 16 November 2016: MoEF and RETN task force representatives had a meeting with the Big 4: Wilmar, RGE, GAR and Musim Mas. The Secretary General of MoEF ordered the four companies not to purchase FFB from illegal palm oil plantations grown in the Tesso

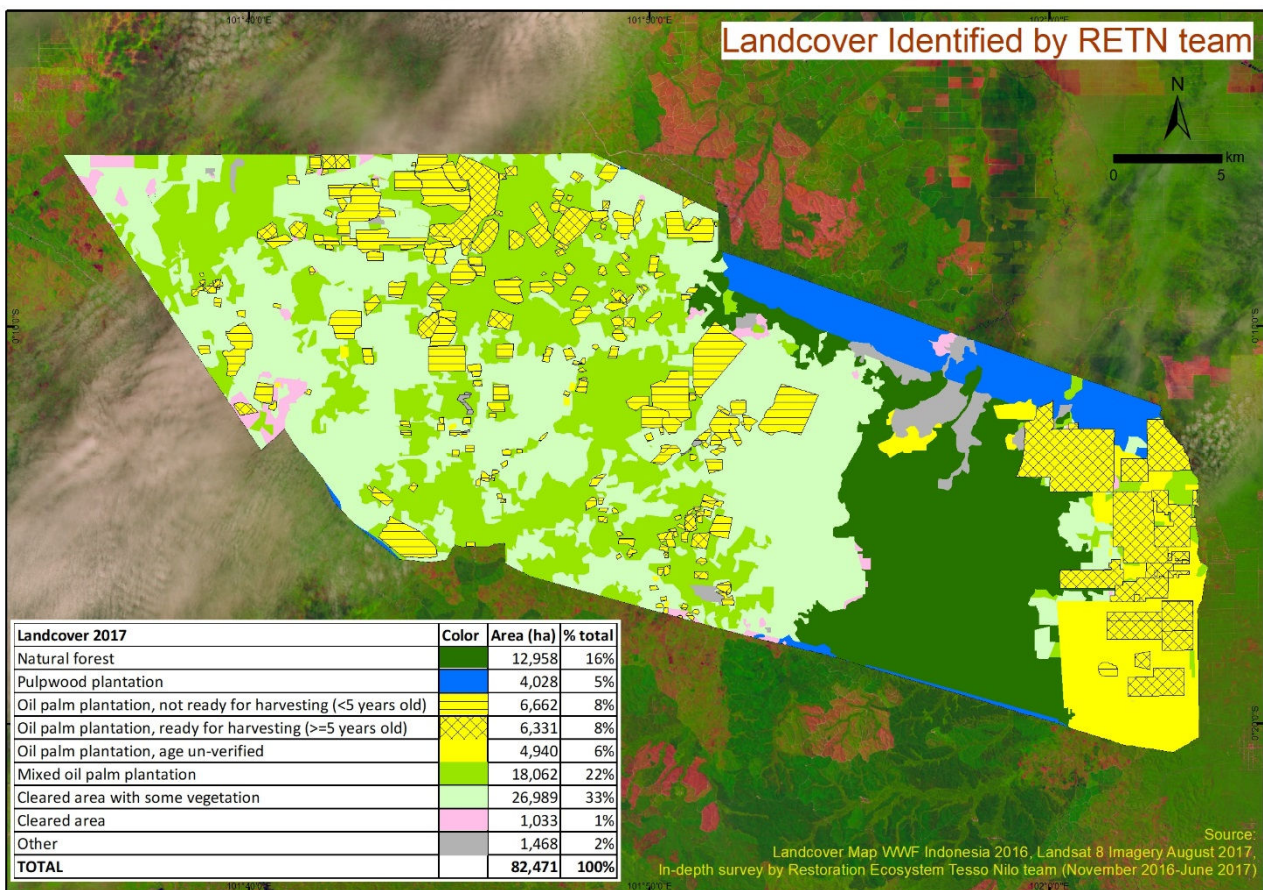
Nilo ecosystem and/or tainted CPO, and informed them that there will be sanctions if they are found to source them;

- 17 February 2017: The Chief of Riau Police issued a letter calling on the 58 CPO mills surrounding the Tesso Nilo ecosystem not to transport and/or source FFB sourced from plantations inside Forest Areas including TNNP²².

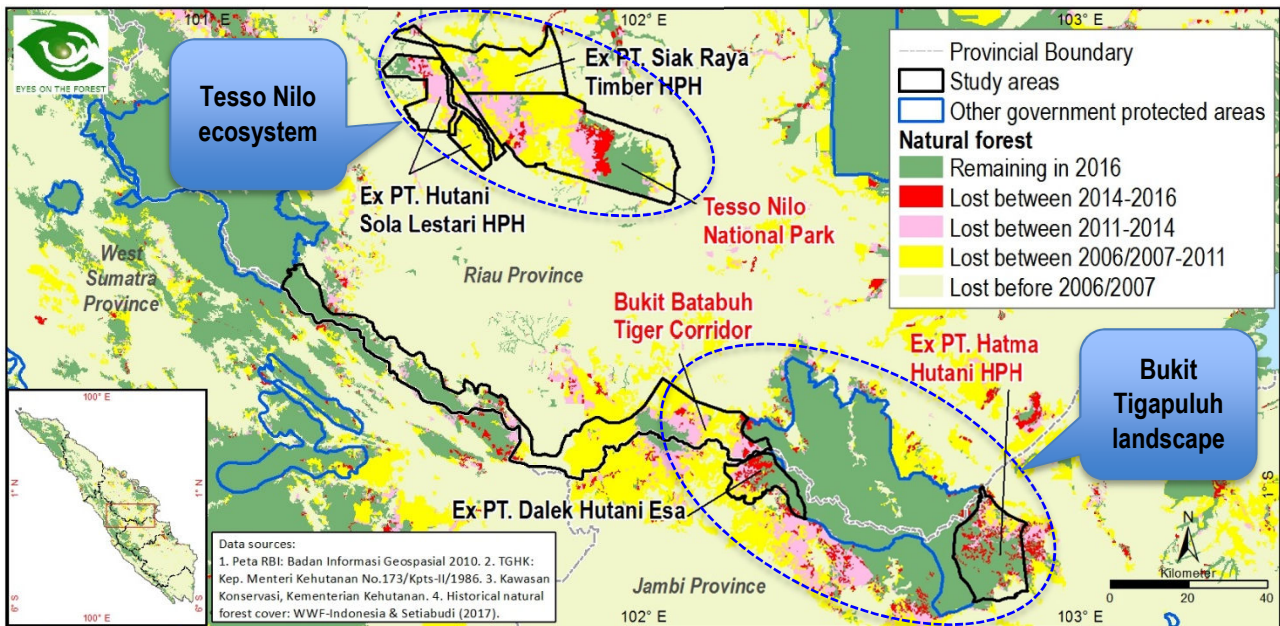
To support the RETN task force’s objectives, EoF investigated traceability of illegal FFB from TNNP between June and August 2017. Today, the 82,471 hectares national park is covered by around 36,000 hectares (44%) of oil palm plantations, some of them still growing to become harvestable, and 27,000 ha (33%) of “cleared area with some vegetation” which are often planted with oil palm (Map 1). Have the Big 4 followed the MoEF Secretary General’s order? Are they still receiving TNNP FFB and/or tainted CPO? And what about other protected forests? Where does the illegal FFB from Riau’s Bukit Batabuh Protection Forest go?

In 2017, EoF also conducted investigations into chains of custody originating in illegal oil palm plantations in two areas in another conservation hotspot in central Sumatra, Bukit Tigapuluh landscape²³ (Map 2):

- Bukit Batabuh Tiger Corridor and nearby Forest Areas²⁴, and
- Expired selective logging concession area of PT. Hatma Hutani.



Map 1.—Land covers identified by RETN in Tesso Nilo National Park in 2017. Some of the “Cleared area with some vegetation” zones also have some young oil palms though not well managed. Harvestable age is considered higher than normal (5 instead of 3) because growth of palms in many areas is not uniform and some farmers wait until all trees are ready to be harvested.



Map 2.—Deforestation history in and around the study areas where EoF conducted investigations in 2017 (with names in red text) or previous years (names in black text).

Box 1. All oil palm plantations inside protected areas like TNNP and the Government’s “Forest Estate”, are considered illegal. Transactions of FFB originating from them are considered illegal and anyone involved in the transaction process could face criminal charges in Indonesia. Relevant letters of Law No. 18/2013 “The Prevention and Eradication of Forest Destruction”²⁵ on development of oil palm plantations in Forest Areas and transaction of products from such plantations²⁶ state:

**Chapter IV Eradication of Forest Destruction,
Part Two Provisions on Forest Destruction Acts,
Article 17**

- (2) Anybody is banned from:
- b. conducting plantation activities in forest area without a permit from the Minister;
 - e. buying, marketing and/or processing plantation products from plantation activities in forest area without a permit.

**Chapter X Crime Provisions,
Article 92**

- (1) Anybody who knowingly:
- a. conducts plantation activities without a permit from the Minister in forest area as referred to in Article 17 paragraph (2) letter b; and/or
 - b. brings heavy duty equipment and/or other equipment commonly used or believed to be used to conduct plantation activities and/or transport plantation products in forest area without a permit from the Minister as referred to in Article 17 paragraph (2) letter a shall be sentenced to a minimum of 3 (three) years and a maximum of 10 (ten) years in jail and be fined a minimum of Rp1,500,000,000.00 (one billion, five hundred million rupiah) and a maximum of Rp5,000,000,000.00 (five billion rupiah).

Article 93

- (3) Any corporation:
- c. buys, markets and/or processes plantation products from plantation activities in forest area without a permit as referred to in Article 17 paragraph (2) letter e shall be sentenced to a minimum of 5 (five) years and a maximum of 15 (fifteen) years in jail and be fined a minimum of Rp5,000,000,000.00 (five billion rupiah) and a maximum of Rp15,000,000,000.00 (fifteen billion rupiah).

INVESTIGATION FINDINGS

1. Tracking illegally grown FFB from protected areas to CPO mills

Between January and June 2017, EoF tracked illegal FFB from production to processing. Investigators picked up the trails of loads of FFB at their first collection points inside Tesso Nilo National Park, Bukit Batabuh Protection Forest and its adjacent Forest Area in Riau Province and ex PT. Hatma Hutani selective logging concession in Jambi Province and continuously documented their routes until they entered CPO mill gates. Illegally grown FFB was bought by (Appendix 1 and Table 1, Table 2):

- **PT. Citra Riau Sarana 2** mill. The company is a **repeat offender**. Its three mills had been found to purchase illegal FFB from TNNP in 2011, 2012²⁷ and 2015²⁸. In 2017, the company's 2 mill was found to receive three separate supplies of illegal FFB from TNNP between 11-13 June. *Wilmar Plantation Limited*, a direct wholly-owned subsidiary of RSPO member *Wilmar International Limited*, disposed of its entire 95% equity interest in *PT. Citra Riau Sarana* to "*Team Ventures Investments Limited*" in December 2014²⁹ after EoF (2013) revealed that the company bought illegal FFB.
- **PT. Inti Indosawit Subur (RGE/Asian Agri) Ukui 1** mill. The company is a **repeat offender**. Its Ukui 1 and Ukui 2 mills had already been found to purchase illegal FFB from TNNP in 2011, 2012³⁰ and 2015³¹.
- **PT. Makmur Andalan Sawit** and **PT. Gemilang Sawit Lestari** mills. They are **repeat offenders**, found to buy illegal FFB from Tesso Nilo National Park in 2015³². They are non-branded, so-called independent mills without their own plantations.
- **PT. Sawit Mas Nusantara** is a non-branded independent mill which started to operate in 2016. It was found to receive three separate supplies of illegal FFB from TNNP between 15 and 17 June.
- **PT. Fortius Wajo Perkebunan** and **PT. Persada Alam Jaya** in Jambi Province are non-branded independent mills.

Interestingly, RGE reports that its implicated PT. Inti Indosawit Subur Ukui 1 mill had 100% traceability for FFB supplies between January 2014 and September 2015 while random investigations by EoF found the mill to purchase illegal FFB from TNNP twice, between 22-23 January and 14 April 2015³³. This points to a serious flaw in RGE's traceability work and its definition of "FFB traceable": RGE requires such very limited data on the actual plantation areas (Appendix 3) that they cannot possibly verify legality or environmental and other impacts of the actual FFB production sources.

Wilmar requires even less data than RGE for a supply to be considered source traceable. For agents, they don't even ask GPS locations of FFB sources (Appendix 3). In 2013, Wilmar wrote that "*Wilmar will create transparent sourcing networks with full traceability. [...] These commitments will apply to all subsidiaries, refineries, mills that Wilmar owns, manages or invests in, regardless of stake and all third-party suppliers we purchase from or with whom we have a trading relationship [...] we expect suppliers to be fully compliant with all provisions of this policy by December 31, 2015.*"³⁴ However, Wilmar has missed the deadline by a wide margin and still does not know FFB sources for most of the CPO processed by their downstream facilities³⁵. The company also failed to answer EoF's request for data on the percentage of third party supplies they receive. The group has not published a new deadline for achieving full FFB traceability and seems to be moving away from the FFB traceability objective, saying: "*Obtaining traceability information to farm or plantation level can therefore be highly resource intensive in terms of man-hours and cost. Traceability information, by itself, does not address environmental and social issues. Moreover, the definition of 'traceable to plantation', or 'fresh fruit bunch (FFB) traceability', is also a subject*

of considerable debate. We believe resources are more effectively utilised in supporting the transformation of mills and their supply bases towards responsible practices³⁶”.

Clearly, that is not working. In response to the EoF report (2016), Wilmar wrote that it continued to guide and monitor PT. Citra Riau Sarana sourcing after disposing of the company and its consultant TFT had found that the company enforced Wilmar’s sourcing guidelines³⁷. However, Wilmar’s sourcing guidelines clearly do not detect the illegally grown FFB the company buys.

Table 1.—Supply chains of FFB, illegally grown by distinct groups of encroachers operating inside Tesso Nilo National Park, Bukit Batabuh Tiger Corridor or its adjacent Forest Area, and to surrounding CPO mills (see Appendix 1 for maps with the chains of custody).

CoC #	FFB Seller			FFB Buyer			Total travel distance	Dates of investigation
	Encroacher group / area / cooperative / company	Latitude	Longitude	CPO mill	Corporate Group	Operates own plantation?		
Chains of custody originating inside Tesso Nilo National Park								
1	Toro	S0°16'19.80"	E101°51'3.60"	PT. Citra Riau Sarana 2	Ex Wilmar	Yes	56 km	11-12 Jun 2017
2	Toro	S0°14'35.27"	E101°47'15.02"	PT. Citra Riau Sarana 2	Ex Wilmar	Yes	51 km	12 Jun 2017
3	Toro	S0°14'27.73"	E101°45'42.81"	PT. Citra Riau Sarana 2	Ex Wilmar	Yes	46 km	12-13 Jun 2017
4	Bukit Kusuma	S0°7'24.70"	E101°47'21.30"	PT. Sawit Mas Nusantara	No info	No	60 km	15-16 Jun 2017
5	Bukit Kusuma	S0°7'30.80"	E101°45'35.30"	PT. Sawit Mas Nusantara	No info	No	61 km	16-17 Jun 2017
6	Simpang Silau	S0°12'46.03"	E102°2'36.81"	PT. Inti Indosawit Subur Ukui 1	RGE/Asian Agri	Yes	21 km	17 Jun 2017
7	Simpang Silau	S0°12'40.80"	E102°2'26.46"	PT. Makmur Andalan Sawit	No info	No	54 km	18-19 Jun 2017
8	Simpang Silau	S0°13'42.22"	E102°2'25.14"	PT. Sawit Mas Nusantara	No info	No	145 km	15-16 Jun 2017
Chains of custody originating inside Bukit Batabuh Tiger Corridor or the nearby Forest Area								
9	PT. Bagas Indah Perkasa	S0°45'14.99"	E102°3'33.46"	PT. Gemilang Sawit Lestari	No info	No	71 km	12 Jun 2017
10	PT. Bagas Indah Perkasa	S0°45'9.51"	E102°3'36.64"	PT. Gemilang Sawit Lestari	No info	No	71 km	14 Jun 2017
11	PT. Runggu Prima Jaya	S0°51'42.77"	E101°57'49.96"	PT. Gemilang Sawit Lestari	No info	No	76 km	13 Jun 2017
Chains of custody originating inside ex PT. Hatma Hutani selective logging concession								
12	KPMMB, Lubuk Kambing	S1°13'42.46"	E102°50'46.36"	PT. Fortius Wajo Perkebunan	No info	No	82 km	12-13 Jan 2017
13	Sungai Ari, Suban Village	S1°5'1.27"	E102°50'53.17"	PT. Persada Alam Jaya	No info	No	13 Km	22 Feb 2017
14	PT. Alkausar Afdeling VII	S1°15'8.31"	E102°50'44.90"	PT. Fortius Wajo Perkebunan	No info	No	83 km	25-26 Feb 2017



Photo 1.—A board and a banner at PT. Sawit Mas Nusantara gate say: "Attention...!!! PT. Sawit Mas Nusantara does not receive FFB from protected forest areas, TNTN, & illegal FFB. Anyone who ignores the above, then all the consequences of legal risk that occurs is not the responsibility of PT. Sawit Mas Nusantara." Still, the company was found to buy illegal FFB from TNTN (Tesso Nilo National Park) 3 times in June 2017. Photos taken by Eyes on the Forest on 3 August 2017.



In summary, EoF investigations since 2011 found 22 CPO mills to receive illegal FFB from protected areas in Central Sumatra (Table 2). Please note that when a mill in Table 2 does not show sourcing of illegal FFB received during a particular year, it does not mean that the mill did not buy any illegal FFB that year. Nor does it mean that CPO mills who are not listed in Table 2 have not bought any illegal FFB. Given the small scale of the investigations, EoF believes its study identified only the tip of the iceberg. Given the widespread illegality, combined with over capacity for refining, a general lack of FFB tracing by the industry, and the apparent unwillingness to do so by major players like Wilmar, the majority of the world's palm oil supplies may be tainted with FFB illegally grown in some of the last remaining habitats of critically endangered species like tigers, elephants, and orangutan (also see Chapters 3 and 4).

Table 2.—22 CPO mills found by EoF to receive illegal FFB from the Tesso Nilo complex and the Bukit Tigapuluh landscape between 2011 and 2017. CPO mills with * are independent mills without own plantations.

#	CPO mills which received illegal FFB		Year and source of illegal FFB received				ISPO certified?
	CPO Mill (company and mill name)	Group	2011-2012 ³⁸	2012-2014 ³⁹	2014-2015 ⁴⁰	2017	
1	PT. Berlian Inti Mekar Rengat*	Mahkota		BBTC			No
2	PT. Citra Riau Sarana 1 (Teso Satu)	Ex Wilmar	Ex PT. Hutani Sola Lestari HPH				No
3	PT. Citra Riau Sarana 2 (Teso Dua)	Ex Wilmar	TNNP			TNNP	No
4	PT. Citra Riau Sarana 3 (Teso Tiga)	Ex Wilmar	TNNP		TNNP		No
5	PT. Fortius Wajo Perkebunan*	No info				Ex PT. Hatma Hutani HPH	No
6	PT. Gemilang Sawit Lestari*	Anugrah			TNNP	TNNP, Forest Area near BBTC	No
7	PT. Inti Indosawit Subur Ukui 1	RGE	TNNP		TNNP	TNNP	Yes ⁴¹
8	PT. Inti Indosawit Subur Ukui 2	RGE	TNNP				Yes ⁴²
9	PT. Makmur Andalan Sawit*	No info			TNNP	TNNP	No
10	PT. Mitra Unggul Pusaka Segati	RGE	Ex PT. Siak Raya Timber HPH				Yes ⁴³
11	PT. Peputra Supra Jaya	No info			TNNP		No
12	PT. Persada Alam Jaya*					Ex PT. Hatma Hutani HPH	No
13	PT. Putera Keritang Sawit*	No info		BBTC			No
14	PT. Rigunas Agri Utama Bungo Tebo	RGE			Ex Dalek		Yes ⁴⁴
15	PT. Rigunas Agri Utama Peranap	RGE		BBTC			Yes ⁴⁵
16	PT. Sawit Mas Nusantara*					TNNP	No
17	PT. Sugih Riesta Jaya*	No info		BBTC			No
18	PT. Sumbar Andalas Kencana Muara Timpeh	Incasi Raya		BBTC			No
19	PT. Swakarsa Sawit Raya	No info			TNNP		No
20	PT. Tri Bakti Sarimas 1 (Bukit Bayung)	Sarimas		BBTC			Yes ⁴⁶
21	PT. Tri Bakti Sarimas 2 (Ibul)	Sarimas		BBTC			Yes ⁴⁷
22	PT. Wana Jingga Timur	Darmex		BBTC			Yes ⁴⁸

2. Tracking CPO tainted with illegally grown FFB

Between March and August 2017, EoF also tracked CPO trucks from the 7 mills identified as having received illegal FFB between January and June (Table 1) and documented their routes continuously to their destinations (Appendix 2 and Table 3). Tainted CPO was transported to three repeat offenders and one additional facility:

- RSPO member⁴⁹ **Wilmar International Limited**'s integrated manufacturing Kawasan Industri Dumai complex in Pelintung in Riau, where **PT. Wilmar Nabati Indonesia** Pelintung and **PT. Wilmar Bioenergi Indonesia** are based. Trucks with tainted CPO were found to enter this complex in 2011⁵⁰ and 2015⁵¹. This year, tainted CPO originating from *PT. Citra Riau Sarana 2 mill* was found to enter the complex.
- Another RSPO member⁵² of **RGE**⁵³, **Apical's AAA Oil & Fats Pte. Ltd.** facility in Riau, where **PT. Sari Dumai Sejati** and **PT. Cemerlang Energi Perkasa** are based. Trucks with tainted CPO were found to enter this complex in 2015⁵⁴. This year, the facility was found to receive tainted CPO originating from two non-branded mills, *PT. Makmur Andalan Sawit* and *PT. Sawit Mas Nusantara*.
- A bulking station of **Sumber Kencana (SK) Group**. Trucks with tainted CPO were found to enter this complex in 2013⁵⁵ and 2015⁵⁶. This year, the facility was found again to receive tainted CPO originating from *RGE's PT. Inti Indosawit Subur Ukui 1 mill* and two non-branded mills, *PT. Gemilang Sawit Lestari* and *PT. Fortius Wajo Perkebunan (Jambi Province)*. *SK Group's* website which was active until October 2017 claimed companies like *Astra, Cargill, Darmex, Musim Mas, RGE, Salim, Sarimas* and *GAR* groups as its customers⁵⁷. Unless *SK* diligently segregated all the CPO its trucks and barges transported by plantation source, it may have shipped CPO contaminated by illegally grown FFB to its customers. *GAR* was found to use this company in the past and wrote to EoF (18 January 2016): "*SK Group provides storage services for two of GAR's mills under terms that GAR oil has to be segregated from oils owned by other parties. This requirement was established in response to the findings in the EoF "Tiger in the Tank" report in 2014*".
- A refinery of **CV. Perintis Lintas Talang Duku, Pelita Group** in Jambi Province.

Table 3.—Supply chains of CPO tainted with FFB illegally grown inside the two investigated areas.

Co C #	CPO mills confirmed to have received illegally grown FFB	Corporate Group	Final destination: refinery / port	Corporate Group	District / Province	Dates of investigation
1	PT. Citra Riau Sarana 2	Ex Wilmar	PT. Wilmar Nabati Indonesia Pelintung & PT. Wilmar Bioenergi Indonesia	Wilmar	Kotamadya Dumai / Riau	29-30 July 2017
2	PT. Inti Indosawit Subur Ukui 1	RGE/Asian Agri	PT. Sumber Kencana	SK	Indragiri Hilir, Riau	4 August 2017
3	PT. Makmur Andalan Sawit	No info	PT. Sari Dumai Sejati & PT. Cemerlang Energi Perkasa	RGE/Apical	Kotamadya Dumai / Riau	31 July – 1 August 2017
4	PT. Sawit Mas Nusantara	No info	PT. Sari Dumai Sejati & PT. Cemerlang Energi Perkasa	RGE/Apical	Kotamadya Dumai / Riau	7-8 August 2017
5	PT. Gemilang Sawit Lestari	No info	PT. Sumber Kencana	SK	Indragiri Hilir, Riau	28 July 2017
6	PT. Fortius Wajo Perkebunan	No info	PT. Sumber Kencana	SK	Indragiri Hilir, Riau / Jambi	16 Mar 2017
7	PT. Persada Alam Jaya	No info	CV. Perintis Lintas Talang Duku	Pelita	Muaro Jambi / Jambi	17-18 Mar 2017

3. Exposure of the Big 4 to tainted CPO – company commitments versus reality

The Big 4 have been trying to reach 100% traceability of CPO for their downstream facilities (refineries, bulking stations, etc.) and publish regularly updated supply chain data, including lists of CPO suppliers per facility, on their web pages:

- Wilmar: <http://www.wilmar-international.com/sustainability/supply-chain-map/>
- GAR: <https://goldenagri.com.sg/sustainability-dashboard/supply-chain-map>
- RGE/Apical: <http://www.sustainability.apicalgroup.com/supply-chain-map/>
- Musim Mas: <http://www.musimmas.com/sustainability/traceable-supply-chain/supply-chain-map>

EoF appreciates the transparency of the companies who published some of their supply chains and hopes that its investigation will help them to eliminate FFB produced illegally or in violation of zero deforestation commitments at plantation level from their supply chains. EoF checked the CPO tracing data of the Big 4's Indonesian downstream facilities and compared it to its own findings of illegal FFB supply chains between January and June 2017 (Table 1) and tainted CPO supply chains between March and August 2017 (Table 3). The results (Table 4) show that:

- The seven mills identified by EoF to purchase illegal FFB between January and June 2017 supplied CPO to 7 facilities of the Big 4 for the data periods up to June 2017.
- In the subsequent months July-August 2017, Wilmar and RGE/Apical facilities were found by EoF to buy CPO from three out of the seven mills.
- RGE/Apical's own CPO tracing data up to June 2017 show it purchased tainted CPO from 6 out of the 7 mills, including two implicated mills in Jambi Province.
- None of the CPO trucks that EoF investigators followed entered GAR and Musim Mas facilities, however, their own mill traceability data show that three of their facilities purchased CPO from three mills combined.

Table 4.—Downstream facilities of the Big 4 which purchased CPO from the seven CPO mills identified by EoF to purchase illegal FFB in January - June 2017 (Table 1).

#	CPO mill		Source of illegal FFB	Refineries or bulking stations of the four groups which buy CPO from the mills which were found to purchase FFB from Tesso Nilo National Park			
	Company	Group		Wilmar ⁵⁸ (data period: Jul 2016 – Jun 2017)	GAR ⁵⁹ (data period: Apr-Jun 2017)	Apical ⁶⁰ (data period: Apr-Jun 2017)	Musim Mas ⁶¹ (Jan-Jun 2017)
1	PT Citra Riau Sarana 2	Ex Wilmar	Tesso Nilo NP	WNI Dumai, WNI Pelintung			
2	PT Gemilang Sawit Lestari	No info	Tesso Nilo NP, Bukit Batabuh Protection Forest			Sari Dumai Sejati, CET	IBP Lubuk Gaung ⁶²
3	PT Inti Indosawit Subur Ukui 1 mill	Asian Agri	Tesso Nilo NP			Sari Dumai Sejati, CET	
4	PT Makmur Andalan Sawit	No info	Tesso Nilo NP		Dumai Bulking Station, Lubuk Gaung Refinery	Sari Dumai Sejati, CET	IBP Lubuk Gaung
5	PT Sawit Mas Nusantara	No info	Tesso Nilo NP	WNI Dumai, WNI Pelintung	Dumai Bulking Station, Lubuk Gaung Refinery	Sari Dumai Sejati	
6	PT. Fortius Wajo Perkebunan	No info	Ex. PT. Hatma Hutani HPH			Sari Dumai Sejati	
7	PT. Persada Alam Jaya	No info	Ex. PT. Hatma Hutani HPH			Sari Dumai Sejati	

For the Big 4's seven downstream facilities who were supplied by the seven implicated CPO mills in 2017 (Table 4), the latest CPO and FFB tracing data published by the Big 4 let EoF conclude that all except GAR's Dumai bulking station (Table 5):

- Receive the majority (45% to 88.77%) of their CPO supplies from third party mills, apparently because of over-capacities in their refining operations.
- Trace FFB only with low intensity. They do not properly verify compliance with their legality and zero deforestation policy for their "FFB traceable" third party supplies, as the companies clearly do not ask the right questions about the sources of FFB (Chapter 1, Appendix 3).
- Have only a minority of their CPO supplying mills RSPO certified.

Table 5.—*Status quo of CPO and FFB traceability of the seven downstream facilities of the Big 4 which purchased CPO from the seven CPO mills who were identified by EoF to purchase illegal FFB between January and June 2017 (Data sources: the same supply chain maps quoted in Table 4).*

Group	Facility	% CPO traceable to mill	% CPO traceable to plantation	# of suppliers (% total supply)				# of RSPO Certified Mills
				Own mill	3rd party mill	Own refineries	Others (refiners/traders/bulkers)	
Wilmar	WNI Dumai	95.7%	20.0%	8 (18.8%)	86 (63.6%)	5 (17.5%)	0 (0%)	6
Wilmar	WNI Pelintung	98.2%	18.2%	18 (15.1%)	147 (63.4%)	5 (21.2%)	2 (0.3%)	19
GAR	Dumai	100%	55%	6 (55%)	44 (45%)	0 (0%)	0 (0%)	7
GAR	Lubuk Gaung	100%	23%	18 (24%)	70 (76%)	0 (0%)	0 (0%)	28
RGE	Sari Dumai Sejati	97.51%	No info.	20 (11.23%)	160 (88.77%)	0 (0%)	0 (0%)	23
RGE	CET	98.88%	No info.	20 (46.99%)	108 (53.01%)	0 (0%)	0 (0%)	22
Musim Mas	IBP Lubuk Gaung	100.00%	41.1%	6 (18.00%)	116 (81.00%)	1 (2.00%)	0 (0%)	21

The implications for global buyers of palm oil from companies who do not identify and reject illegal FFB at the CPO mill gate and indiscriminately continue to feed CPO from such mills into refineries become clear once the flows of CPO and refined products are mapped (Figure 1). EoF compiled:

- all illegal FFB and tainted CPO chains of custody WWF and EoF verified on the ground since the first investigation in July 2011, and
- additional flows of CPO from the 22 implicated CPO mills (Table 2) to Big 4's downstream facilities based on the lists of supplier mills published by the Big 4.

The data (Figure 1) show that Big 4 palm oil supplies are much more contaminated by the trade of CPO tainted by illegal FFB than the few random EoF investigations suggest. Considering the deeply penetrating contamination of Big 4 supplies just from EoF's investigation of two small conservation areas in Sumatra suggests how huge the problem really may be if FFB and CPO flows from more conservation areas in the country were investigated⁶³.

The data on CPO flows collected by the Big 4 could easily be used by them to identify their facilities' exposure to illegal and deforestation linked products - if the companies would evaluate the legality and sustainability of the FFB supplied to each CPO mill that they source from. Unfortunately, companies appear reluctant to do so.

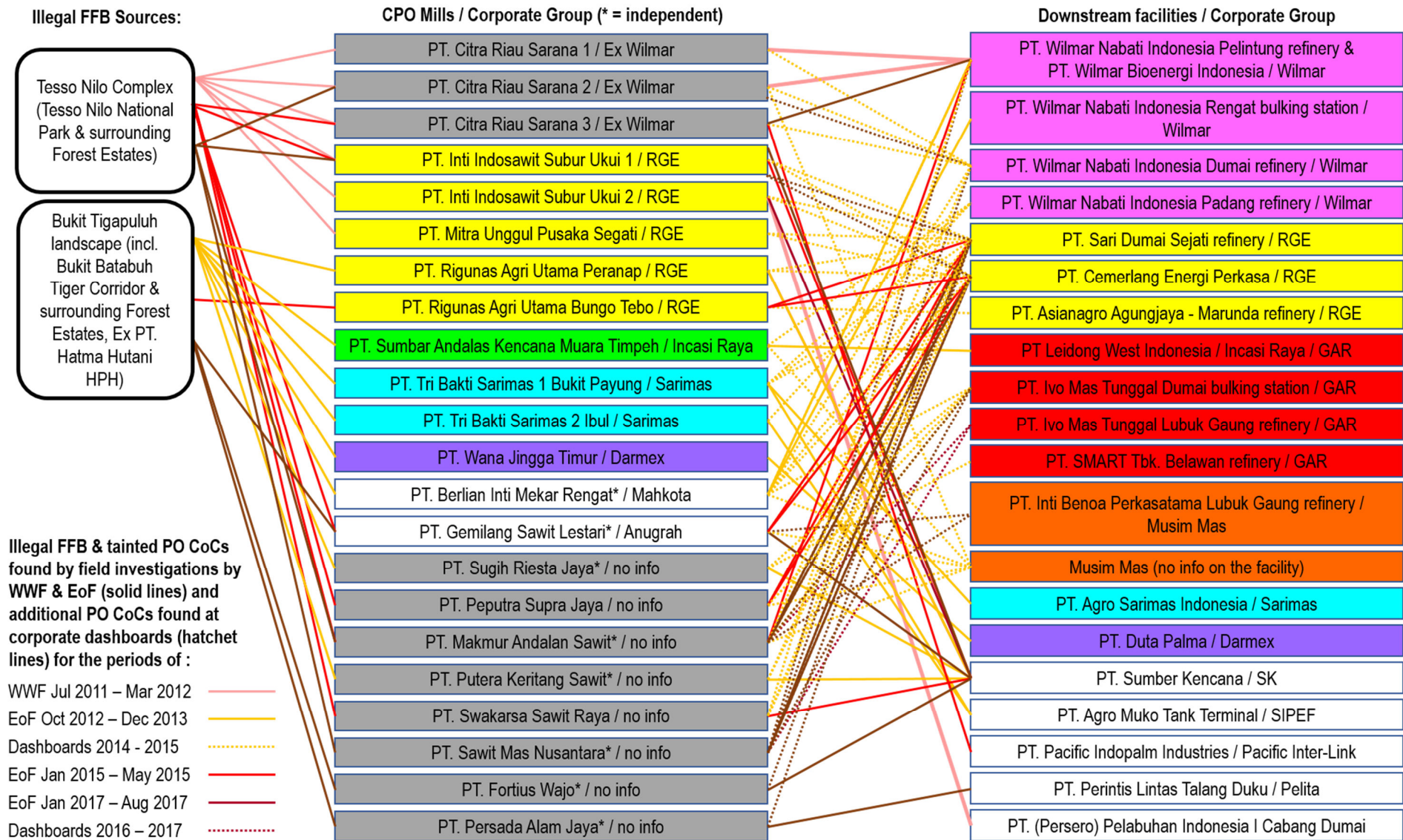


Figure 1.—Chains of custody (CoC) of illegal fresh fruit bunches (FFB) and tainted palm oil (PO) identified since 2011 in WWF and EoF field investigations originating in Tesso Nilo ecosystem and Bukit Tigapuluh landscape (solid lines) and additional PO CoC based on published data on CPO suppliers to the Big 4’s downstream facilities (dotted lines).

4. Exposure of other major global palm oil traders/users to tainted CPO

EoF greatly appreciates that an increasing number of major global companies have begun publishing some of their supply chain data. EoF evaluated the lists of palm oil supplying mills recently published by some of the major palm oil traders / users with zero deforestation commitments (Table 6) to check whether the 22 CPO mills which have received illegal FFB (Table 2, Figure 1) are among their suppliers.

Table 6.—Global palm oil traders/users who published their palm oil supplying mills.

Company who published PO supplier mill list	Direct PO suppliers disclosed by the company	Period and coverage of the PO supplier mill data checked by EoF to produce Figures 2 - 8	Figure
AAK	No data	Unspecified time/period ⁶⁴ .	2a
ADM / Olenex	No data	July 2016 – September 2017 supplier list for ADM Global, Europe, North America and Olenex facilities ⁶⁵	2a
Bunge & Bunge Loders Croklaan	There is no information on direct suppliers for Bunge ⁶⁶ . Direct suppliers for Bunge Loders Croklaan include Apical, Cargill, GAR, ICOF of Musim Mas and Wilmar ⁶⁷ .	2017 Q3 supplier list for Bunge ⁶⁸ and the 2017 Q1-Q4 supplier list for Bunge Loders Croklaan ⁶⁹ . The lists for Bunge Loders Croklaan include data on direct suppliers who sourced from them, but the list for Bunge does not.	2b
Cargill	No data	“List of mills in Cargill’s supply chain of the past quarter” ⁷⁰ , but not dated.	2a
Colgate-Palmolive	It’s largest suppliers for PO and PKO are Wilmar, Sime-Darby/Morakot, Cargill and ADM ⁷¹ .	2017 list ⁷² . The list includes data on direct suppliers who sourced from them.	2c
General Mills	As of December 31, 2017, it’s direct PO suppliers include AAK, ADM, Bunge, Cargill, Fuji Oil and Loders Croklaan ⁷³ .	The “most recent list of mills supplying our direct suppliers” ^{74, 75} , but not dated. The list includes data on direct suppliers who sourced from them.	2d
Kellogg’s	No data	Full year of 2017 ⁷⁶	2a
Mars	It’s top 6 suppliers covering 80% of palm volume are Cargill, IOI ⁷⁷ , AAK, Fuji, Olenex and Wilmar ⁷⁸ .	2016 suppliers list ⁷⁹ . The list does not include data on direct suppliers.	2a
Mondelēz	It’s “continuing suppliers” include AAK, Apical, Bunge, Cargill, IOI, Fuji Oil, Sime Darby and Wilmar ⁸⁰ .	Suppliers list of unspecified time ⁸¹ . The list includes data on direct suppliers who sourced from them.	2e
Neste	No data	Suppliers during part or all of 2016 ⁸²	2a
Nestlé	It’s direct suppliers include AAK, ADM, Bunge Loders Croklaan, Cargill, Fuji Oil, PT. Smart Tbk Marunda, Sime Darby and Wilmar ⁸³ .	November 2017 snapshot of direct (Tier 1) suppliers and their palm oil supplier mills ⁸⁴ . The list includes data on direct suppliers who sourced from them.	2f
Olam	Direct suppliers include Apical, GAR, Sime Darby and Wilmar ⁸⁵ .	2016 & 2017 list ⁸⁶ . The list includes data on direct suppliers who sourced from them.	2g
PepsiCo	It’s 39 direct suppliers include Wilmar ⁸⁷ .	2017 list does not include direct suppliers info ⁸⁸ .	2a
Proctor & Gamble	6 direct suppliers of PO and PKO are AAA, FGV, GAR, KLK, Musim Mas and Wilmar ⁸⁹ .	2017 palm and palm kernel oil supplier mill list ⁹⁰ . The list does not include data on direct suppliers.	2a
Reckitt Benckiser	In 2017 it’s direct suppliers of palm oil-derived soap noodles included IOI Oleo, Musim Mas, Unilever and Wilmar International (includes Wilmar China and Adani Wilmar) ⁹¹ .	2007 supplier list ⁹² . The list does not include data on direct suppliers.	2a
Unilever	More than 300 direct suppliers are disclosed ⁹³ .	2017 supplier list ⁹⁴ . The list does not include data on direct suppliers.	2a

EoF found that (Figures 2a – 2g):

- **All companies** bought directly or indirectly from at least some of the 22 implicated mills. None appear to have bought from PT. Wana Jingga Timur’s CPO mill. This new analysis shows more than ever what EoF predicted in 2016: “No one is safe” from supplies tainted by illegal product (Figures 2a-2g).
- **Bunge Loders Crocklaan, Colgate-Palmolive, General Mills, Mondelēz, Nestlé and Olam** published direct suppliers and supplying CPO mills together (Figures 2b-2g). They bought from the implicated mills via their direct suppliers including: **AAK, ADM, Apical of RGE, Cargill, Bunge Loders Crocklaan, Fuji Oil, GAR, ICOF of Musim Mas, IOI, Louis Dreyfus, Sime Darby Plantation and Wilmar.**
- Supply chain transparency varied greatly between companies. Some miss-spelled company and mill names. Some mills were only identified by location without company names (e.g. only “Ukui I” instead of “PT. Inti Indosawit Subur Ukui I mill”). As a result, we listed some “likely CPO supply chains” shown as red dotted lines in some Figures. They, as all the data in this analysis need to be verified by the companies and EoF will be happy to update the information.

EoF hopes that this analysis will help untangle the complex web of palm oil supplies across the globe, identify policy and legal compliance issues, and encourage companies to work together to solve the issue of continuing deforestation and pumping of illegal, unsustainable palm oil into the global economy once and for all. EoF also hopes that more companies will publish their supply chain data.



Natural forest in the Bukit Tigapuluh landscape. Can we save the last remaining lowland forest in central Sumatra? © Neil Ever Osborne / WWF-US.

Implicated CPO Mills / Corporate Group (* = independent)

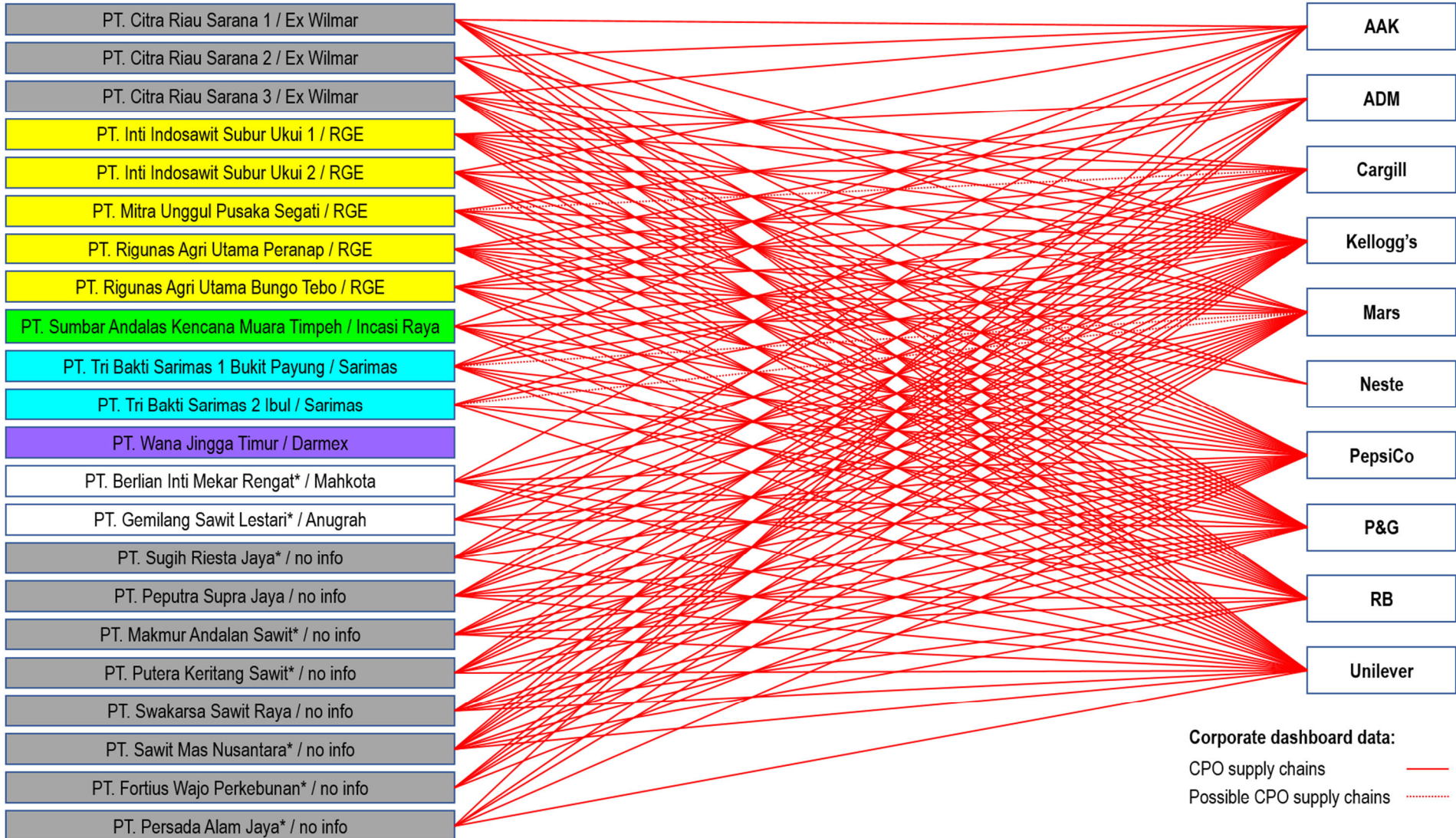


Figure 2a.—Direct or indirect palm oil supplies to **AAK, ADM, Cargill, Kellogg's, Mars, Neste, PepsiCo, P&G, RB** and **Unilever** from some of the 22 CPO mills which WWF and EoF field investigations since 2011 found to have purchased, sometimes repeatedly, illegal fresh fruit bunches (FFB) originating in the Tesso Nilo ecosystem and Bukit Tigapuluh landscape (Table 2, Figure 1).

Implicated CPO Mills / Corporate Group (* = independent)

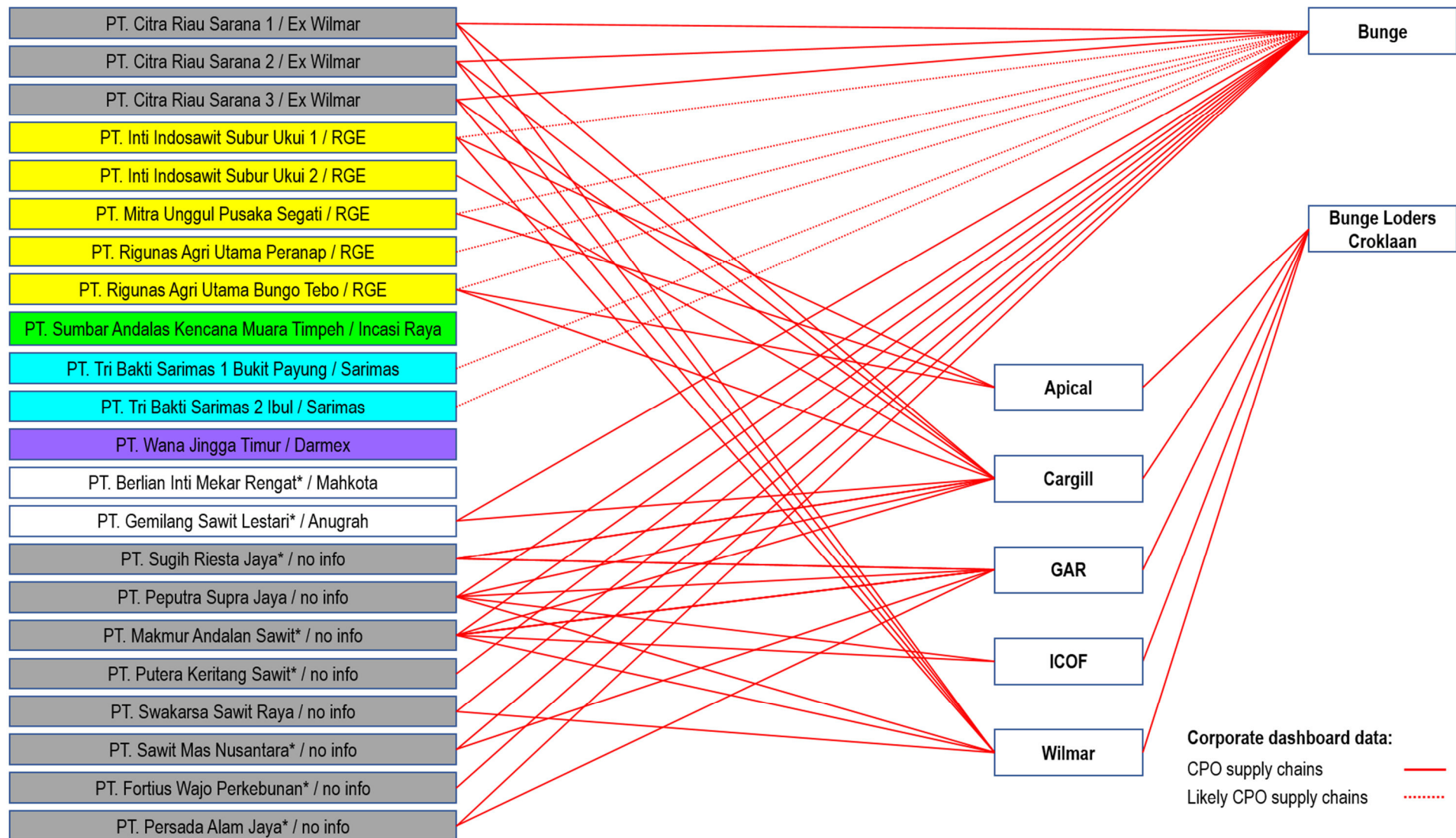


Figure 2b.—Palm oil supplies to **Bunge** and **Bunge Loders Croklaan** from some of the 22 CPO mills which WWF and EoF field investigations since 2011 found to have purchased, sometimes repeatedly, illegal fresh fruit bunches (FFB) originating in the Tesso Nilo ecosystem and Bukit Tigapuluh landscape (Table 2, Figure 1).

Implicated CPO Mills / Corporate Group (* = independent)

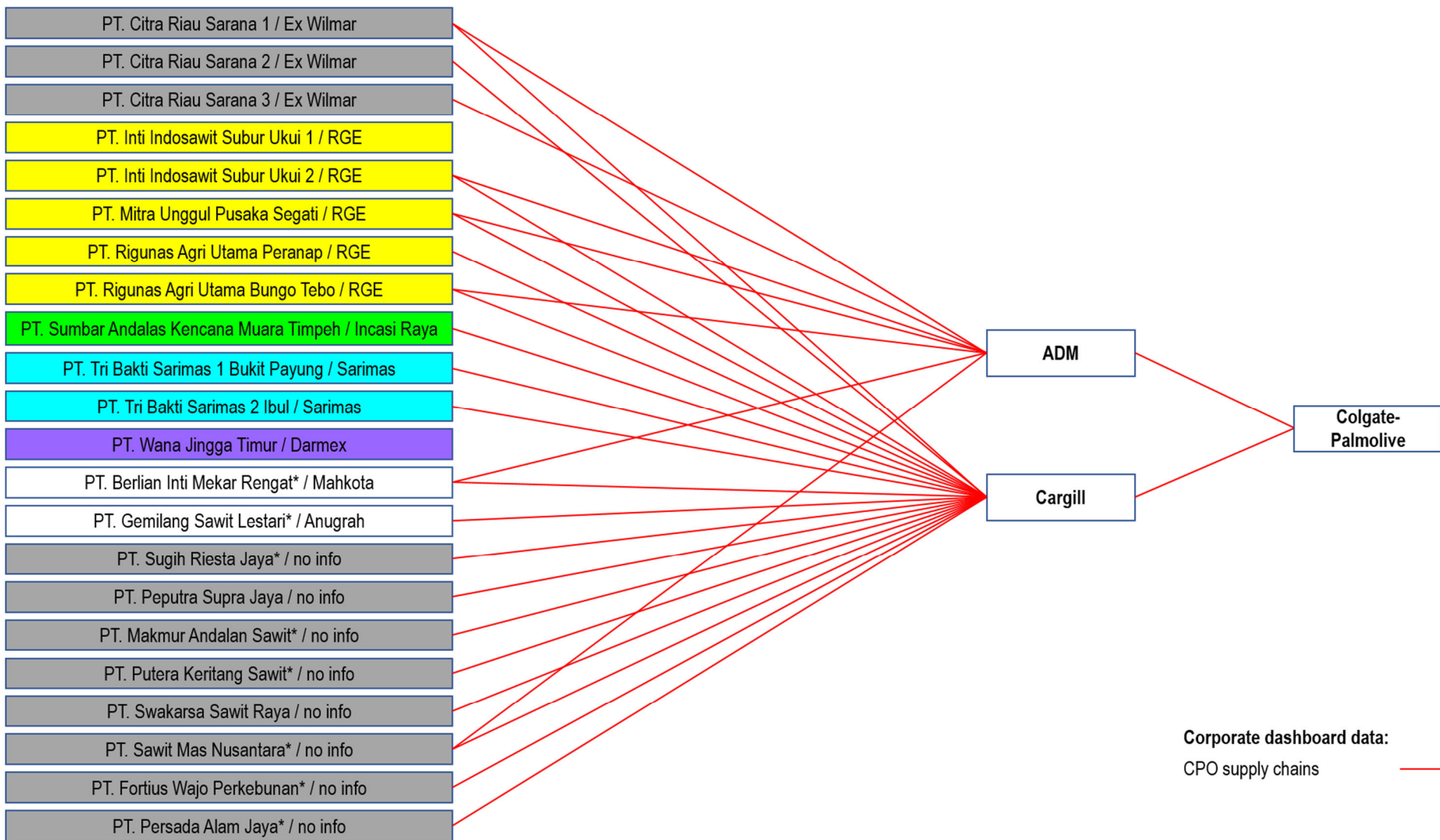


Figure 2c.—Palm oil supplies to **Colgate-Palmolive** from some of the 22 CPO mills which WWF and EoF field investigations since 2011 found to have purchased, sometimes repeatedly, illegal fresh fruit bunches (FFB) originating in the Tesso Nilo ecosystem and Bukit Tigapuluh landscape (Table 2, Figure 1).

Implicated CPO Mills / Corporate Group (* = independent)

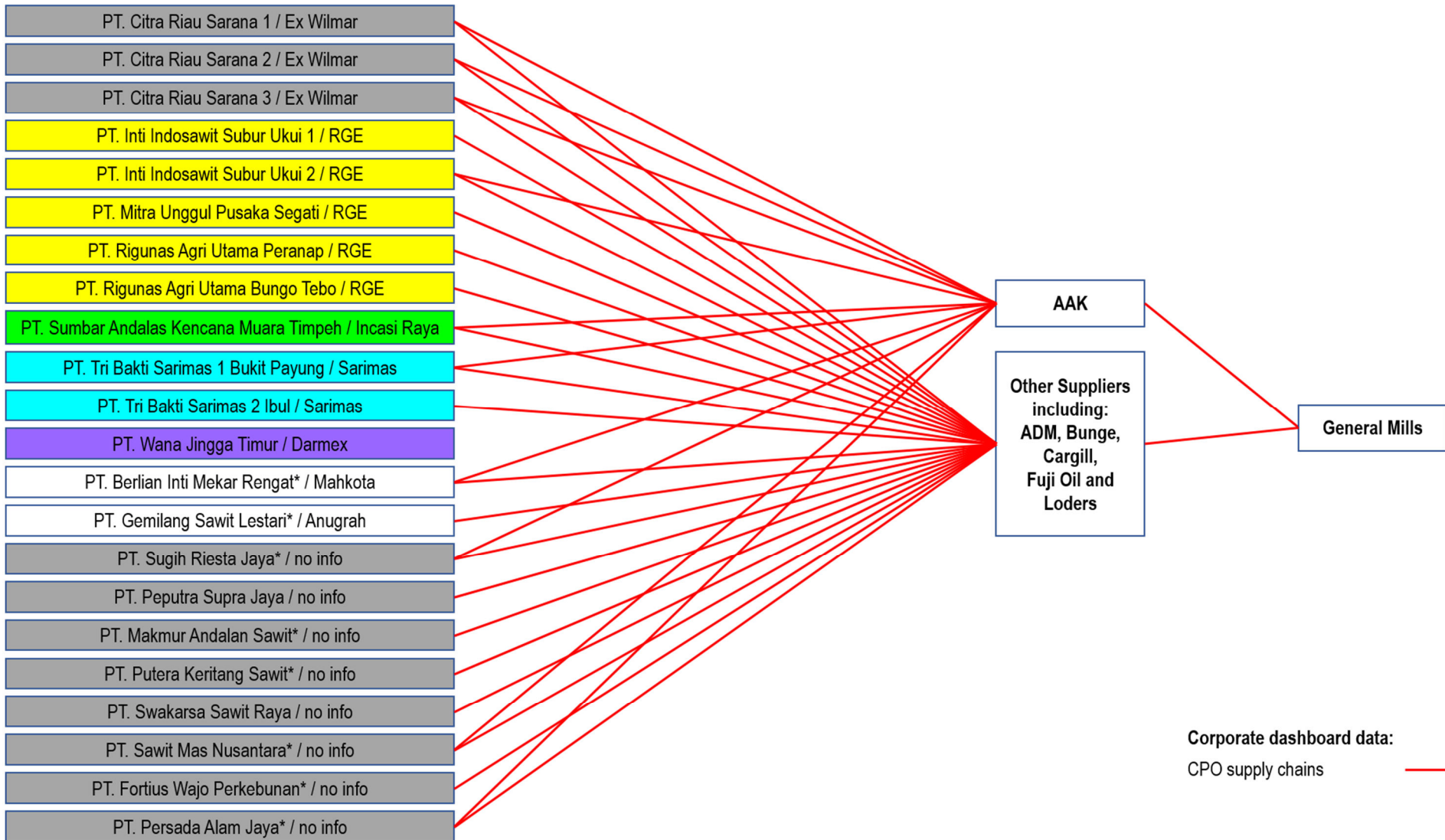


Figure 2d.—Palm oil supplies to **General Mills** from some of the 22 CPO mills which WWF and EoF field investigations since 2011 found to have purchased, sometimes repeatedly, illegal fresh fruit bunches (FFB) originating in the Tesso Nilo ecosystem and Bukit Tigapuluh landscape (Table 2, Figure 1).

Implicated CPO Mills / Corporate Group (* = independent)

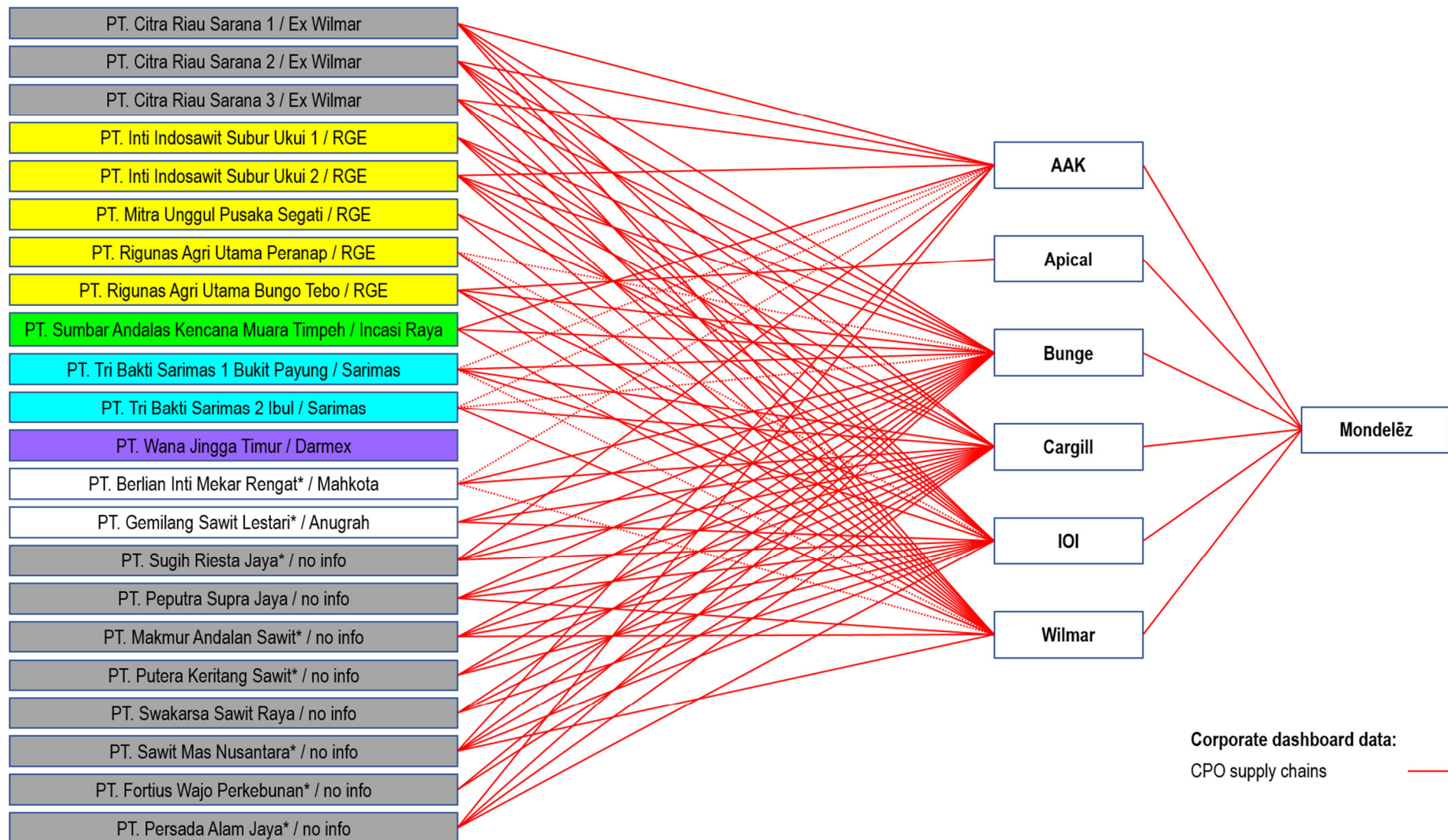


Figure 2e.—Palm oil supplies to **Mondelēz** from some of the 22 CPO mills which WWF and EoF field investigations since 2011 found to have purchased, sometimes repeatedly, illegal fresh fruit bunches (FFB) originating in the Tesso Nilo ecosystem and Bukit Tigapuluh landscape (Table 2, Figure 1).

Implicated CPO Mills / Corporate Group (* = independent)

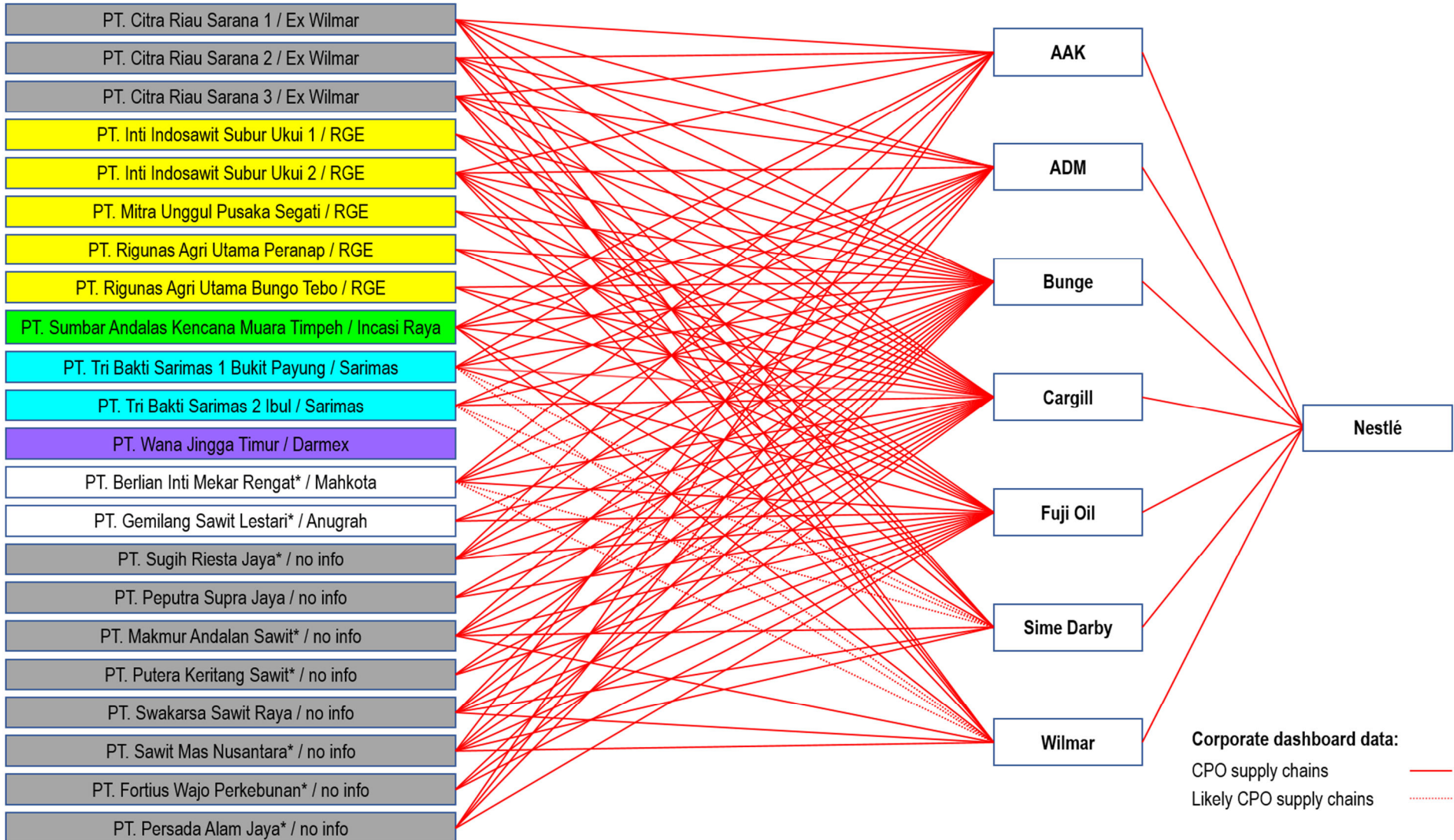


Figure 2f.—Palm oil supplies to **Nestlé** from some of the 22 CPO mills which WWF and EoF field investigations since 2011 found to have purchased, sometimes repeatedly, illegal fresh fruit bunches (FFB) originating in the Tesso Nilo ecosystem and Bukit Tigapuluh landscape (Table 2, Figure 1).

Implicated CPO Mills / Corporate Group (* = independent)

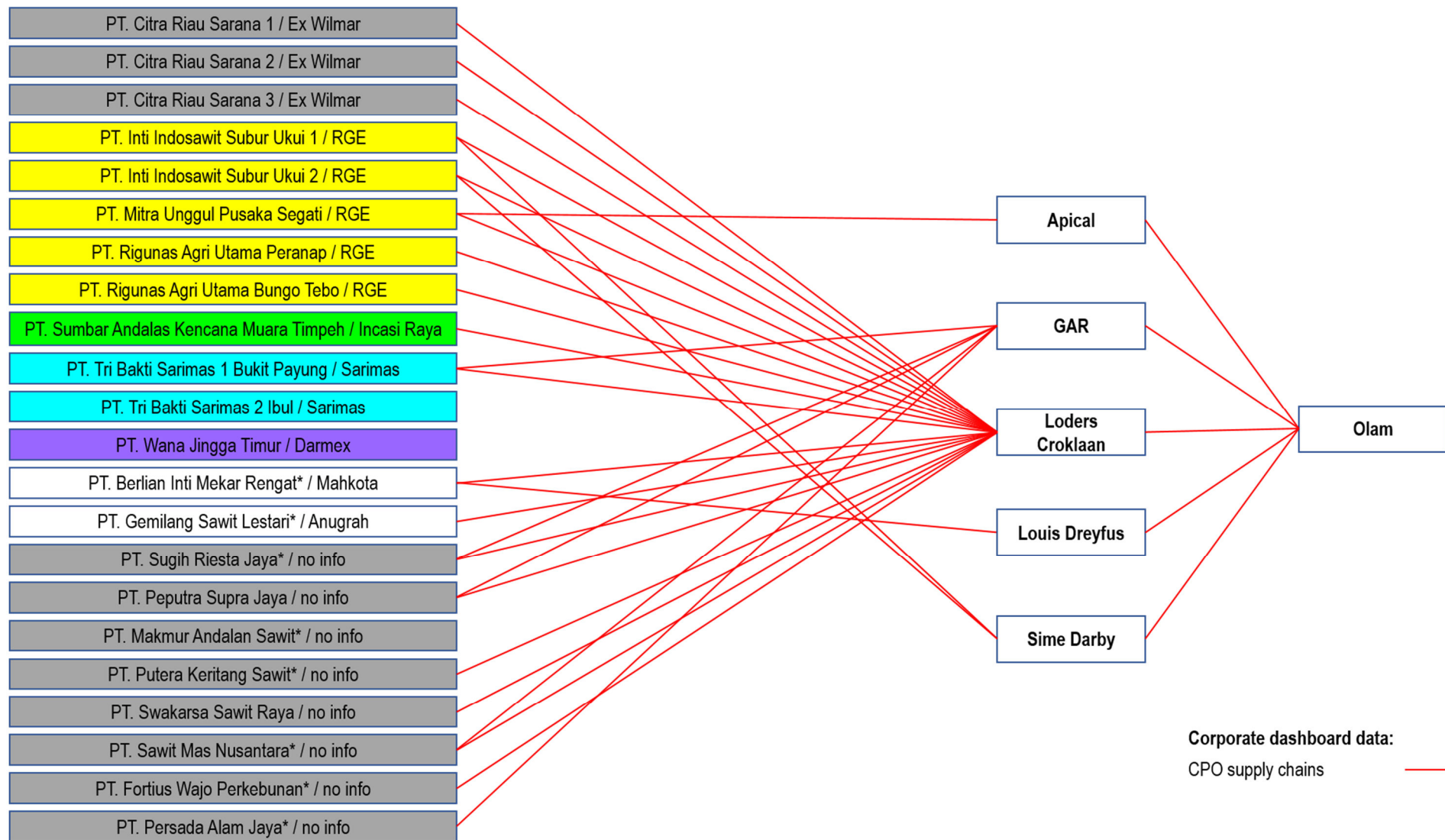


Figure 2g.—Palm oil supplies to **Olam** from some of the 22 CPO mills which WWF and EoF field investigations since 2011 found to have purchased, sometimes repeatedly, illegal fresh fruit bunches (FFB) originating in the Tesso Nilo ecosystem and Bukit Tigapuluh landscape (Table 2, Figure 1).

5. Can RSPO certified products offer a solution?

Currently, RSPO is considered the most credible certification available for sustainable palm oil⁹⁵. However, we need to keep in mind that RSPO certification is not a proof of compliance with individual corporate zero deforestation pledges as RSPO's Principles and Criteria in their current form do not assure total avoidance of deforestation.

RSPO writes: *"To ensure the credibility of the sustainability claim at the end of the supply chain, all organizations that take legal ownership and physically handle RSPO certified sustainable oil palm products need to be supply chain certified. Transparency and credibility are assured through RSPO Supply Chain Certification [SCC] and RPSO Principles and Criteria Certification"*⁹⁶. However, EoF (2016) highlighted that RSPO's Supply Chain Standard only covers operations downstream from the CPO mill but not upstream from the mill to plantations or to independent producers⁹⁷. The RSPO Principles and Criteria for Growers only cover the supply-shed controlled by the company, but not third-party sources.

Our 2017 investigation found that:

- Of the 22 CPO mills who were found to purchase illegal FFB since 2011 (Table 2), PT. Inti Indosawit Subur and PT. Tri Bakti Sarimas are RSPO members.
- Only four of the 22 implicated CPO mills are certified against the RSPO P&C and RSPO Supply Chain Certification November 2014 for CPO Mills and all are RGE/Asian Agri mills: PT. Inti Indosawit Subur's Ukui I mill (Mass Balance)⁹⁸ and Ukui II mill (Identity Preserved)⁹⁹ and PT. Rigunas Agri Utama's Peranap mill (Mass Balance)¹⁰⁰ and Bungo Tebo mill (Mass Balance)¹⁰¹.
- Some of the implicated downstream facilities (Tables 3 and 4 and Figure 1) hold RSPO Supply Chain Certificates (Table 7).

In purchasing palm oil from these facilities, EoF recommends buyers, who do not want to be exposed to the legal risks of knowingly dealing with tainted CPO, to:

- Purchase only palm oil certified by RSPO's "Identity Preserved (IP)" or "Segregated (SG)" Supply Chain Models for which only CPO made from FFB from known and certified sources qualifies. However, buyers may want to take this a step further and verify compliance against their own zero deforestation commitments as current RSPO P&C do not fully ensure that.
- Alternatively, purchase POIG verified oil, which precludes RSPO certified palm oil that may be linked to deforestation.

Currently, RSPO does not have a standard and certification system to verify the origins, legality and sustainability of any FFB used to produce the non-certified oil which is mixed with RSPO Certified Sustainable Palm Oil (CSPO) in Mass Balance certified products and "Book & Claim". The latter does not ensure the presence of CSPO in addition, so theoretically "Book & Claim" oil could be based on 100% illegal/unsustainable FFB as RSPO's systems currently do not detect it. Until RSPO inserts checks and balances on the uncertified oil within both "Mass Balance" and "Book & Claim" products, buyers of these products are recommended to verify themselves the legality and compliance with their own zero deforestation commitments of the uncertified oil.

Our analysis of supplier lists published by global traders and users (Chapter 4) found that:

- **Neste** writes: *"All crude palm oil used by Neste has been fully traceable all the way to the plantation level since 2007, and 100% certified since 2013."*¹⁰² In 2016, Neste bought CPO from three RGE/Asian Agri mills (PT. Inti Indosawit Subur's Ukui I and Ukui II mills and PT. Rigunas Agri Utama Peranap mill, Figure 2a)¹⁰³. The non-certified portion

of the RSPO Mass Balance oil purchased from PT. Inti Indosawit Subur Ukui I and PT. Rigunas Agri Utama Peranap mill is not fully traceable and could be tainted with deforestation.

- **Bunge Loders Croklaan** data shows that it's Rexdale, Rotterdam and Wormerveer facilities purchased RSPO "Identify Preserved" palm oil from PT. Inti Indosawit Subur Ukui I mill via Apical and Wilmar in 2017, however, Ukui I mill is only certified with RSPO Mass Balance. Given that its sister mill Ukui II is certified with "Identity Preserved" this may have been a data glitch.

Considering the above and that RGE's FFB traceability is seriously flawed and the PT. Inti Indosawit Subur is a repeat offender (Chapter 1), we recommend Neste and Bunge to work closely with RGE/Asian Agri to make necessary improvements of their mills' sourcing practices and traceability work.

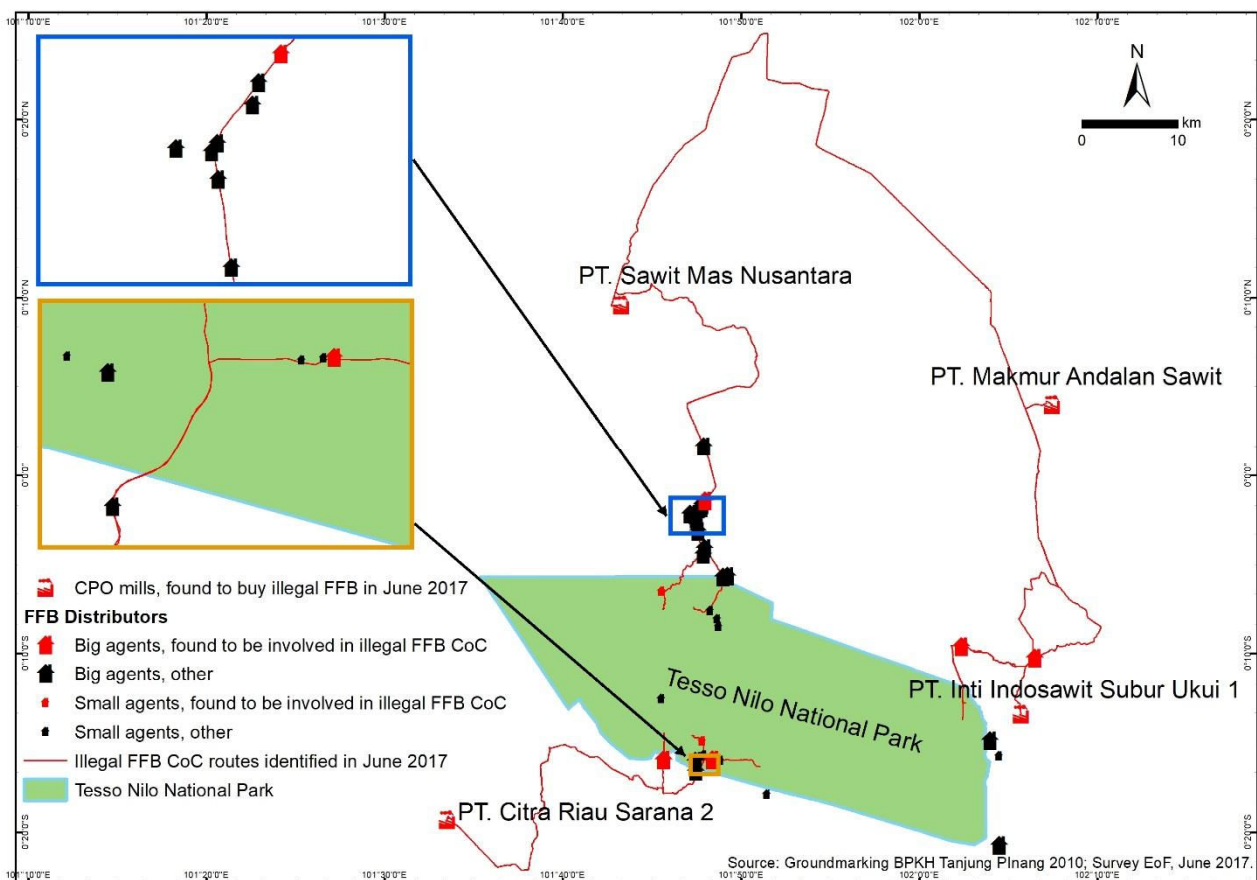
Table 7.—RSPO SCS holders involved in the trade of tainted CPO (see Tables 3 and 4, Figure 1).

Group	Company	Certificate validity period	Supply chain model
Wilmar	PT. Wilmar Nabati Indonesia, Pelintung refinery	19/08/2014 – 18/08/2019 ¹⁰⁴	SG, MB
Wilmar	PT. Wilmar Bioenergi Indonesia	19/08/2014 – 18/08/2019 ¹⁰⁵	SG, MB
Wilmar	PT. Wilmar Nabati Indonesia, Rengat bulking station	No certificate	
Wilmar	PT. Wilmar Nabati Indonesia, Dumai refinery	08/12/2016 – 07/12/2021 ¹⁰⁶	SG, MB
Wilmar	PT. Wilmar Nabati Indonesia, Padang refinery	29/05/2015 – 28/05/2020 ¹⁰⁷	MB
RGE/Apical	PT. Sari Dumai Sejati refinery	30/08/2017 – 29/08/2022 ¹⁰⁸	IP, SG, MB
RGE/Apical	PT. Cemerlang Energi Perkasa	No certificate ¹⁰⁹	
RGE/Apical	PT. Asianagro Agungiaya, Marunda refinery	16/05/2017 – 15/05/2022 ¹¹⁰	MB
GAR	Incasi Raya bulking station in West Sumatra, rented by PT. Leidong West Indonesia	No certificate	
GAR	PT. Ivo Mas Tunggal, Dumai bulking station	06/06/2014 – 05/06/2019 ¹¹¹	SG, MB
GAR	PT. Ivo Mas Tunggal, Lubuk Gaung refinery	30/03/2016 – 29/03/2021 ¹¹²	SG, MB
GAR	PT. SMART Tbk. Belawan refinery	08/10/2013 – 07/10/2018 ¹¹³	SG, MB
Musim Mas	PT. Inti Benoa Perkasatama Lubuk Gaung refinery	08/07/2014 – 07/07/2019 ¹¹⁴	IP, SG, MB
Sarimas	PT. Agro Sarimas Indonesia harbour	No certificate	
Darmex	PT. Duta Palma	No certificate	
SK	PT. Sumber Kencana	No certificate	
SIPEF	PT. Agro Muko Tank Terminal	No certificate	
Pacific Inter-Link	PT. Pacific Indopalm Industries refinery	19/06/2014 – 18/06/2019 ¹¹⁵	MB
Pelita	PT. Perintis Lintas Talang Duku	No certificate	

6. FFB agents - the weakest points in supply chains: the case of Tesso Nilo

In June 2017, EoF identified 21 small agents and 13 big agents distributing (buying and selling) FFB in and around TNNP (Map 2). In principal, agents collect FFB from plantations of various sizes, ages, owners and legality and sell it to CPO mills. Agents can be divided into two types:

- Small agents, who usually are residents living in areas near FFB collection points which receive the FFB from plantations inside TNNP. They collect 7-10 tons of FFB per day and sell it either directly to CPO mills or to big agents.
- Big agents, who usually come from locations outside TNNP, have a lot of capital invested in their operations, operate trucks for FFB transport, have a security apparatus to protect their business, and operate FFB collection points with their own truck scales (weight bridges) that are quite far from the actual plantations. They may collect 40 tons of FFB per day and sell it directly to CPO mills.



Map 2.—Locations of FFB distributors identified by EoF's June 2017 survey inside and around Tesso Nilo National Park.

EoF observed that nearly all FFB harvested in TNNP were brought to FFB collection points of small or big agents, mixed with other FFB there, and then sent to CPO mills. The furthest distance EoF found trucks with illegal FFB to drive was 145 km. EoF observed that agents use different routes, drivers and vehicles to reach CPO mills. The findings show that agents know about the illegality of the FFB they trade and try to obscure its origin before delivering it to the mills.

These observations highlight the critical importance for CPO mills to trace the real origins of FFB delivered by agents so that illegally and unsustainably produced/harvested FFB can

be identified and rejected. Current efforts do not seem to make a difference. FFB traceability data required from “Dealers” (agents) by Apical and Wilmar are not sufficient (Chapter 1, Appendix 3). Wilmar’s current approach to tracing its supplies back to the plantation level does not even require agents to report “GPS” or “planted area” of the FFB they supply. Anything is possible. And with more and more illegal FFB coming online, with illegal growers unable to easily sell their product at market prices, with agents trying to find as much and as cheap FFB as possible to increase their margins and employing simple tricks to hide the origin of their illegal FFB, and with mills reluctant to reject illegal FFB or even put strong measures into place to identify it because they need to fill their FFB supply gaps, the likelihood of agents delivering illegal and/or unsustainable FFB is high.

EoF investigations and the rapid increase in the number of so-called independent mills are indications that the industry’s over capacity for refining CPO has increased operators’ reliance on third party producers and agents to fulfill both FFB and CPO demands. Agents and third-party suppliers are the weakest points in the system and the Big 4 state they are not even aware of the percentage of third supplies in their systems (Table 8). Without the Big 4 truly committing to no longer buy and sell illegal product and establish fool proof systems to achieve 100% FFB traceability for all their supply chains to ensure that, without the Big 4 committing to expand their capacities according to the availability of legal FFB and CPO they can control, rather than the vast quantities of illegal FFB and CPO floating in the market, they will continue to deliver illegal product to the world, and their commitments to conservation and zero deforestation policies will sound ever more hollow as their CEOs battle for position in Forbes’ list of palm oil billionaires. The companies have to invest into legality and they are clearly not doing enough.

Table 8.—CPO refined by Big 4 produced with FFB from third party plantations, based on responses to a request by EoF to provide data and references listed.

Group	# of own downstream facilities refining CPO in Indonesia and Malaysia.	Total CPO refined by own downstream facilities in Indonesia and Malaysia in 2017	Total CPO refined by own downstream facilities in Indonesia and Malaysia, which is produced by own or third party CPO mills from FFB from third party plantations in 2017 (MT/year)	Overall FFB traceability achieved for the total CPO refined by own downstream facilities in Indonesia and Malaysia in 2017
GAR	6 in Indonesia ¹¹⁶	4.7 million MT (capacity) ¹¹⁷	GAR answered that it does not have this figure yet.	39% ¹¹⁸
Wilmar	11 in Indonesia, 10 in Malaysia ¹¹⁹	18.2 million MT (capacity) ¹²⁰ . Wilmar data on supplies and shipments for 2017 writes that 8.54 million MT and 5.69 million MT from its Indonesian and Malaysian refineries, respectively, “are traceable at least to mills” ¹²¹ .	No response	No response
Musim Mas	11 in Indonesia, 1 in Malaysia ¹²²	7.1 million MT (capacity) ¹²³	No response	53% ¹²⁴
Apical	3 in Indonesia ¹²⁵	3.27 million MT	Apical responded: “Incomplete data. Not available as we have not achieved full traceability to plantation.”	No response

CONCLUSIONS & RECOMMENDATIONS

EoF's conclusions from its 2017 investigation echo the key conclusions of its 2016 report¹²⁶:

- EoF's random chains of custody investigations since 2011 found 22 CPO mills to purchase illegal FFB harvested in the High Conservation Value areas Tesso Nilo ecosystem and Bukit Tigapuluh landscape. EoF found the Big 4 - GAR, Musim Mas, RGE and Wilmar - to purchase from these mills - often repeatedly, knowing that they were implicated from earlier EoF reports. The mills are also among the many direct or indirect suppliers of some of the world's key traders/users with zero deforestation commitments, ADM, Bunge, Cargill, Colgate-Palmolive, General Mills, Kellogg's, Mars, Mondelēz, Nestlé, Nestlé, PepsiCo, Proctor & Gamble, Rockitt Benckiser and Unilever. Some of these buyers were found to buy palm oil from these implicated mills via their direct suppliers including AAK, Apical, ADM, Bunge/Loders, Cargill, Fuji Oil, IOI, Sime Darby Plantation and Wilmar.
- The majority of the world's palm oil supplies may thus be tainted by FFB illegally grown in some of the last remaining habitats of critically endangered species like tigers, elephants, and orangutan and on flammable, carbon rich peatlands in Sumatra.
- At the root of this problem is the heavy reliance by the Big 4 and many other companies on external suppliers to fill the demands of their processing and trading facilities, with current refining capacities much larger than the FFB and CPO volumes that comply with government regulations and with the companies' own zero deforestation policies.
- Lack of traceability and the common practice among the Big 4 and others to buy and sell palm oil products to each other led to widespread contamination of the global supply chain. Only strict identification and segregation at the source of FFB from unknown third parties, often traded by agents, can reduce the contamination.
- The scale of the legal issues global buyers and sellers of the tainted product potentially face is huge, as mills and refineries that feed the tainted products into the global economy have known about the systemic legality issues for a long time. Knowingly, they have failed to tackle the issue trying to avoid the investments needed to clean up the system.
- Even today, and despite the proliferation of dashboards and annual sustainability reports, the majority of mills and refineries do not trace the origin of their products to third party plantations, although they know this is the only way to identify and reject illegal FFB and tainted products. Some of the Big 4 even seem reluctant to make this task a priority, likely because it would expose the vastness of the issue of their pumping of illegal product into the global palm economy.
- Agents (distributors, dealers) use different ways (e.g. mixing FFB from different sources, using different vehicles, license plates or drivers) to hide the real origin, legality and sustainability issues of the FFB that they sell to CPO mills. Without a robust traceability system, mills will continue to knowingly purchase illegal FFB.
- The risk for any CPO mill in Sumatra to purchase illegal FFB is extremely high as trucks with illegal FFB followed by EoF travelled up to 145 km and up to 5 days until CPO mills bought their FFB. Illegal FFB followed by EoF often travelled for more than a day, more than enough time to reach most of Riau's almost 200 CPO mills and way beyond district and provincial boundaries¹²⁷. Considering that EoF only investigated occasionally and randomly, these data likely show only the tip of the iceberg and seriously put into doubt the big data based risk assessments and risk radius approaches promoted by mills and their consultants, and many iterations of the so-called "jurisdictional approach". We have known which areas are risky for a very long time, its time for the real work to stop driving deforestation! Only tedious purchasing filters installed at the initial entry points into the global palm economy, the CPO mills, and designed to identify FFB from illegal

sources or in violation of zero deforestation commitments at plantation level can solve this problem.

- In the eighth year since Unilever made the industry's first zero deforestation commitment¹²⁸, there is a clear need for industry and civil society to review all the supply chain work and its real achievements on the ground and to redirect future efforts to achieve the purpose why zero deforestation commitments were ever "created": to stop the loss of the remaining High Conservation Value and High Carbon Stock areas, like Sumatra's lowland forests in Tesso Nilo and Bukit Tigapuluh.

Considering the above, EoF recommends:

To the Big 4 - Wilmar, RGE, GAR and Musim Mas:

- Prioritize "FFB traceability" (plantation to mill) and actually begin identifying and eliminating the illegal suppliers that are contaminating your whole global supply chain (agents and third-party mills) unless they change their practices.
- Improve your traceability systems to actually evaluate the legality and sustainability of the plantations that produce for your facilities and go beyond collecting just the minimum information you currently do.
- Require supplier CPO mills including the 22 implicated mills highlighted by this report to trace and report their FFB sources, disclose and verify the percentages of FFB received from owned plantations, plasma and scheme small-holders, agents and independent growers, and engage them to evaluate the legality and sustainability of their FFB supplies.
- Exclude suppliers that fail to make necessary improvements and continue to rely on illegal/unsustainable FFB sources, but stay engaged and work towards a solution. Restart purchasing only when there is an independently verified proof that illegal/unsustainable FFB sources are excluded.
- Especially Wilmar must stop buying from mills which continue to be identified by EoF as repeat offenders even if your consultants tell you they are clean.
- Have a clear deadline, after which no supplies from agents and third parties will be accepted following a "leave it out if in doubt" approach unless they can prove and verify location, legality and sustainability of all their FFB sources.
- Share your supply chain data and work together as an industry to identify, reject and blacklist questionable agents and suppliers, so that illegal growers no longer have a market for their products and cannot simply divert their products to less concerned mills, allowing their tainted products to eventually incriminate everybody with a tainted downstream supply chain.
- Use extra caution when considering so-called independent mills – mills without their own plantation base – as suppliers as there will be a high potential they receive FFB from illegally grown plantations.
- Require companies specializing in the transportation of CPO, such as SK Group, to join your efforts by segregating supplies from different mills to prevent tainted CPO from contaminating supplies around the world.
- Support legally operating smallholders and independent suppliers to improve practices and achieve RSPO certification so that they can differentiate themselves from rogue operators.
- Address your legacy of deforestation and contribute to the restoration of protected and/or High Conservation Value and High Carbon Stock areas you helped destroy, including the Tesso Nilo ecosystem and Bukit Tigapuluh landscape.
- Do not divest of "toxic assets", like Wilmar did with PT. Citra Riau Sarana and PT. Asiatic Persada¹²⁹, and invest in cleaning up such facilities so that they no longer facilitate illegal deforestation and contaminate global supply streams. Should you have divested do not

buy from them again but stay engaged, work towards a solution, and restart purchasing only when there is an independently verified proof that illegal/unsustainable FFB sources are excluded.

To global palm oil buyers downstream:

- Do not 'turn away' but put pressure the Big 4 and other suppliers to meet the above recommendations and collaborate with peers and WWF and key local stakeholders (NGOs, government) to find a common approach and solutions.
- Prioritize "FFB to end user" traceability through independent, accredited auditing experts and work with WWF and key local stakeholders (NGOs, government) to ensure a legal and sustainable palm oil supply:
 - through segregated certified palm oil based on RSPO "Identity Preserved (IP)" or "Segregated (SG)" Supply Chain Models and strengthened P&C (see recommendations to RSPO below) or POIG, and
 - by only buying mixed oil based on RSPO "Mass Balance (MB)" or "Book & Claim" Supply Chain Models if all uncertified oil has been independently verified by accredited auditors for legality and compliance with your own zero deforestation commitments.
- Support conservation and restoration of High Conservation Value and High Carbon Stock areas lost or degraded by oil palm production, including Tesso Nilo and Bukit Tigapuluh.
- Publish a comprehensive list of your CPO and FFB suppliers. Full transparency will help clean up the sector.

To Indonesian government authorities:

- Stop issuing, and revoke licenses to CPO mills that cannot prove a legal supply base.
- Stop allowing conversion of natural forest to develop new oil palm plantations.
- Enforce existing legislation and regulations and save protected areas and Forest Estates from oil palm plantation development and restore natural forests and peatlands.
- Punish CPO mills and downstream facilities who purchase illegal FFB or tainted CPO products.
- Strengthen ISPO standard and certification so the ISPO is used as a robust proof of legality.
- Stop procurement of CPO with subsidies for biofuels by State-owned companies unless plantation sources are verified legal and sustainable.

To RSPO and its members including companies mentioned in this report:

- Strengthen RSPO Principles and Criteria (P&C) and Supply Chain Certification Systems to ensure that:
 - RSPO certified products are legal and compliant with the most ambitious corporate zero deforestation policies in the industry.
 - RSPO members – including the 'Big 4' – are held accountable for their whole corporate group of companies and all their supply chains including all third party FFB and CPO suppliers to the group's refineries, in line with RSPO's vision to "transform markets to make sustainable palm oil the norm" and the Code of Conduct.
 - RSPO members progress in implementing the whole group and supply chain time bound plans towards certification and the progress is regularly audited by RSPO to confirm this and lack of progress results in revoking of RSPO membership. Have the information on progress published on the RSPO website.
 - RSPO takes strong action including revoking of membership against violations by RSPO members of the country's laws and regulations, RSPO P&C and Code of Conduct, for example in cases where associated facilities accept illegal FFB and

supplies from CPO mills who are involved in the trade of FFB produced illegally and unsustainably.

- RSPO Mass Balance oil is not tainted by illegal palm oil by introducing a system of controls and checks for non-certified oil in the supply chain.
- RSPO members rapidly move towards 100% CSPO based on strengthened RSPO P&C (as above) and/or POIG, and require all of their suppliers to become RSPO members with the appropriate certification (P&C or Supply Chain for IP and SG).
- RSPO Secretariat publishes a response to MoEF's letter on how RSPO is working to end sourcing by RSPO members from national parks such as TNNP.

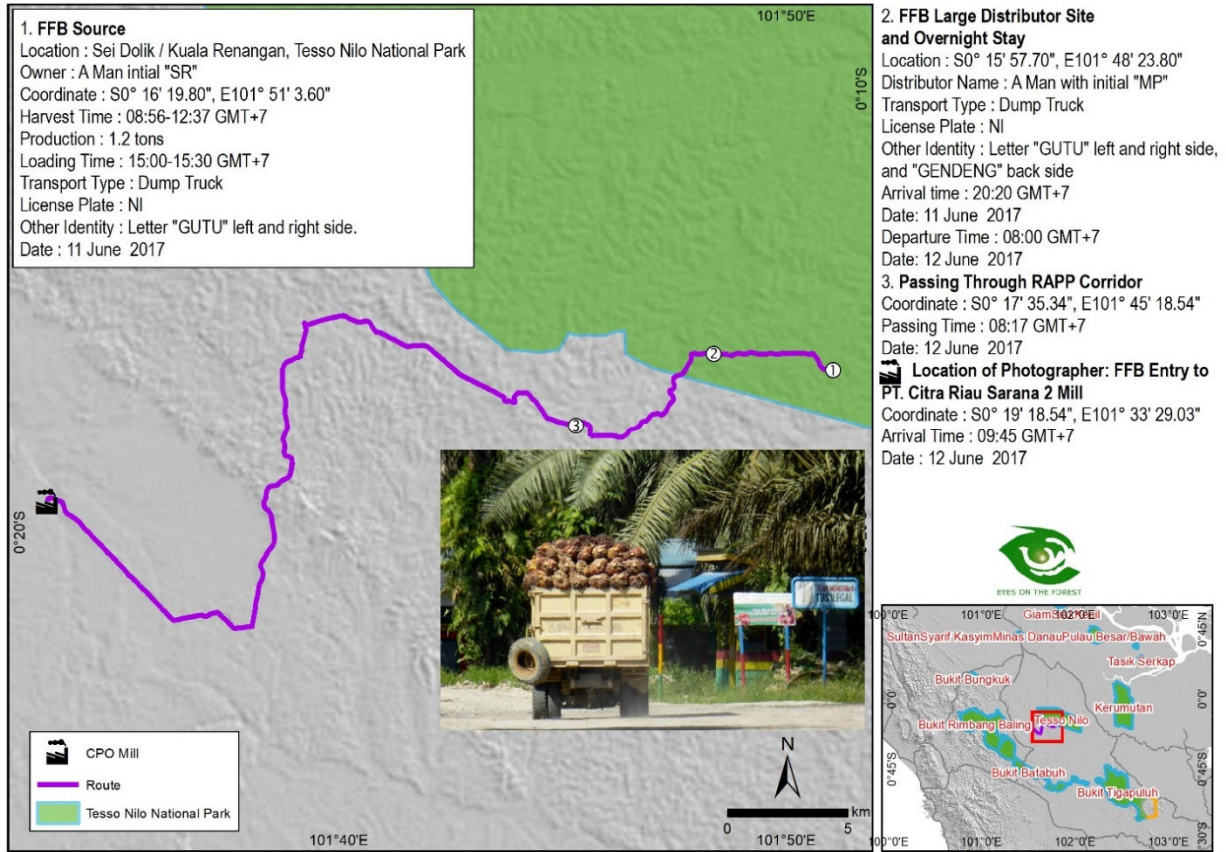
To the CSO community:

- Increase monitoring of field implementation of the much-publicized global sustainability and zero deforestation commitments of the palm oil sector.
- Do not take paper commitments as face value, and inform companies and the public about the mills and refineries that are buying products that are illegal and/or non-compliant with the companies' policies.
- Monitor supply chain operations of RSPO members and SCC certified mills and inform RSPO about purchases of illegal and/or non-compliant products.
- Support the supply chain transparency process of end users who published palm oil supplier lists as an important contribution towards improving the situation as an industry through providing information on FFB sources for these mills and urge other companies to publish their suppliers list.

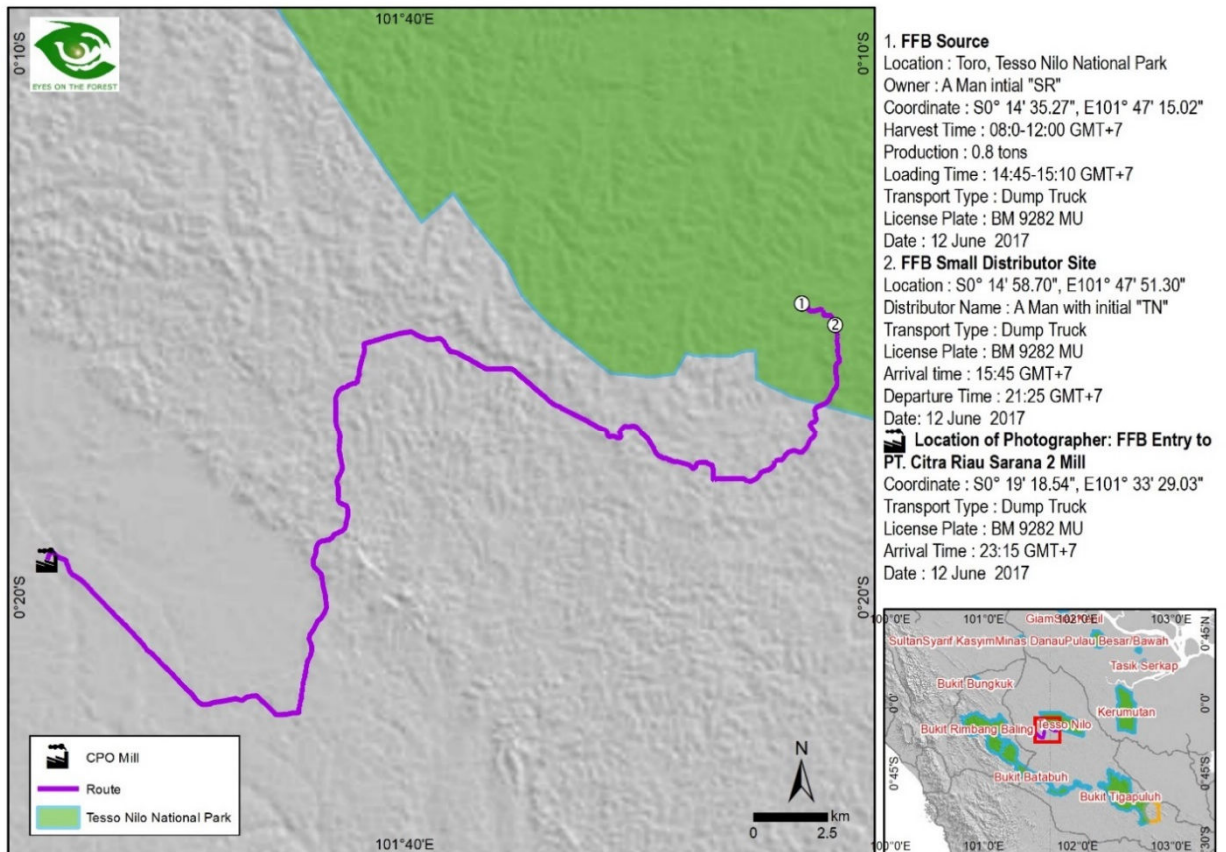
#END

Appendix 1. Supply chains of illegal FFB to surrounding CPO mills.

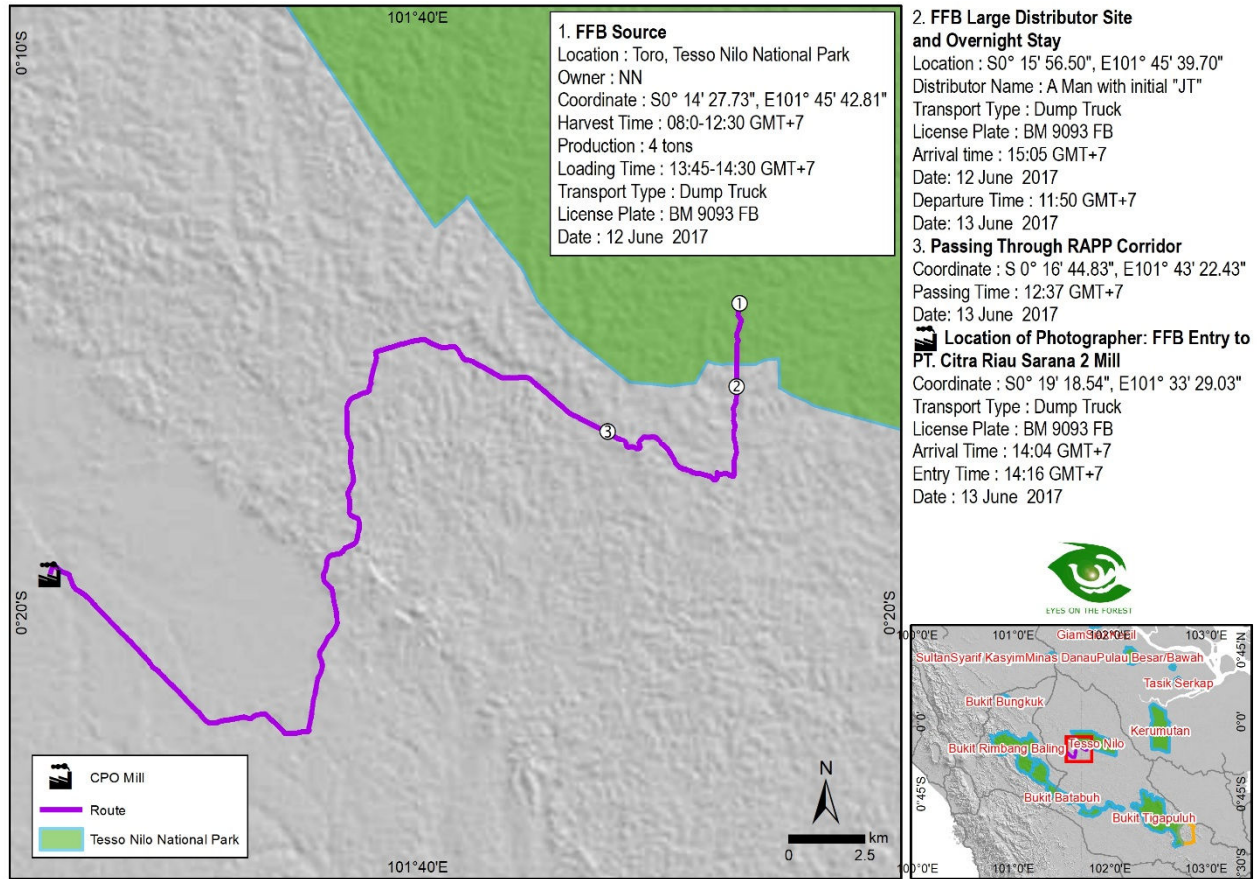
CoC 1 – Toro group to PT. Citra Riau Sarana 2 mill.



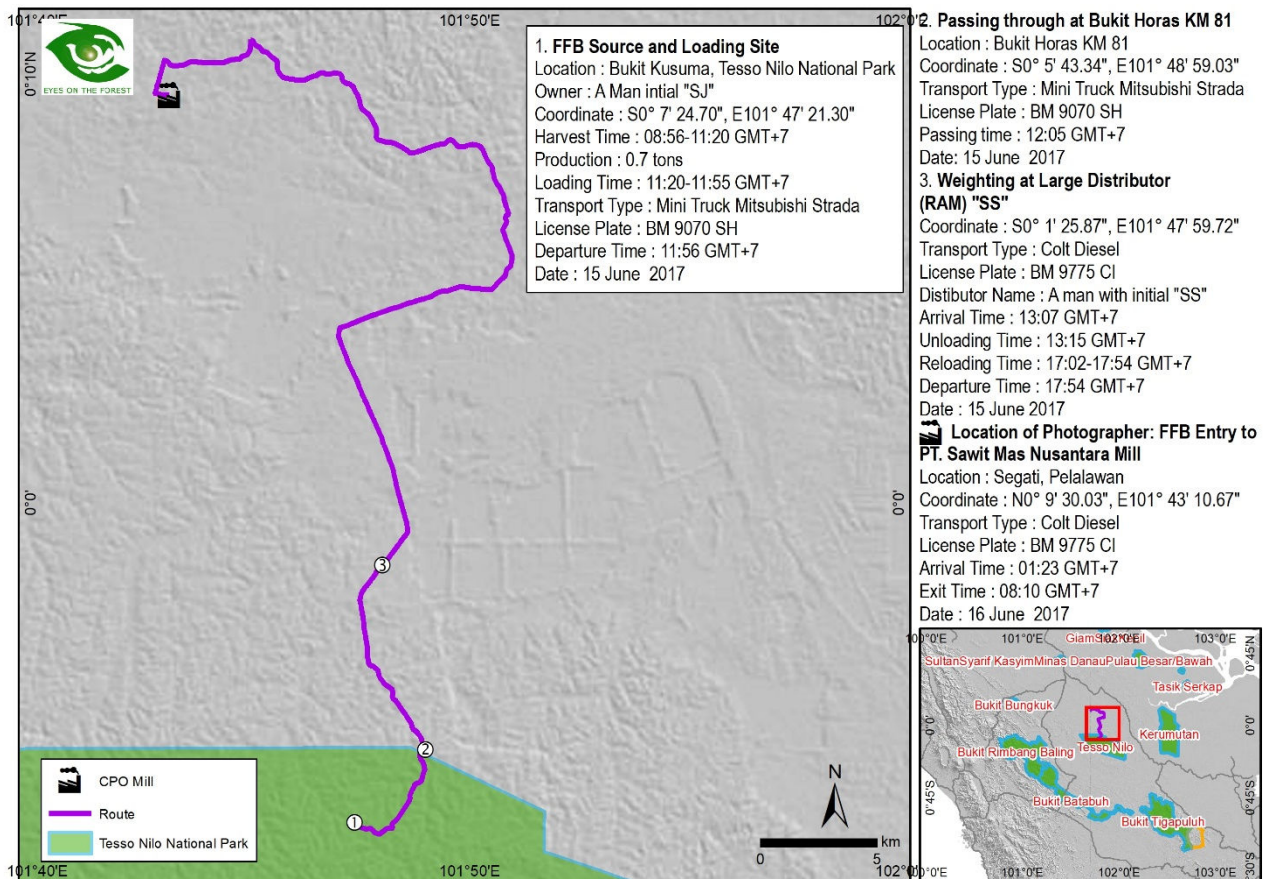
CoC 2 – Toro group to PT. Citra Riau Sarana 2 mill.



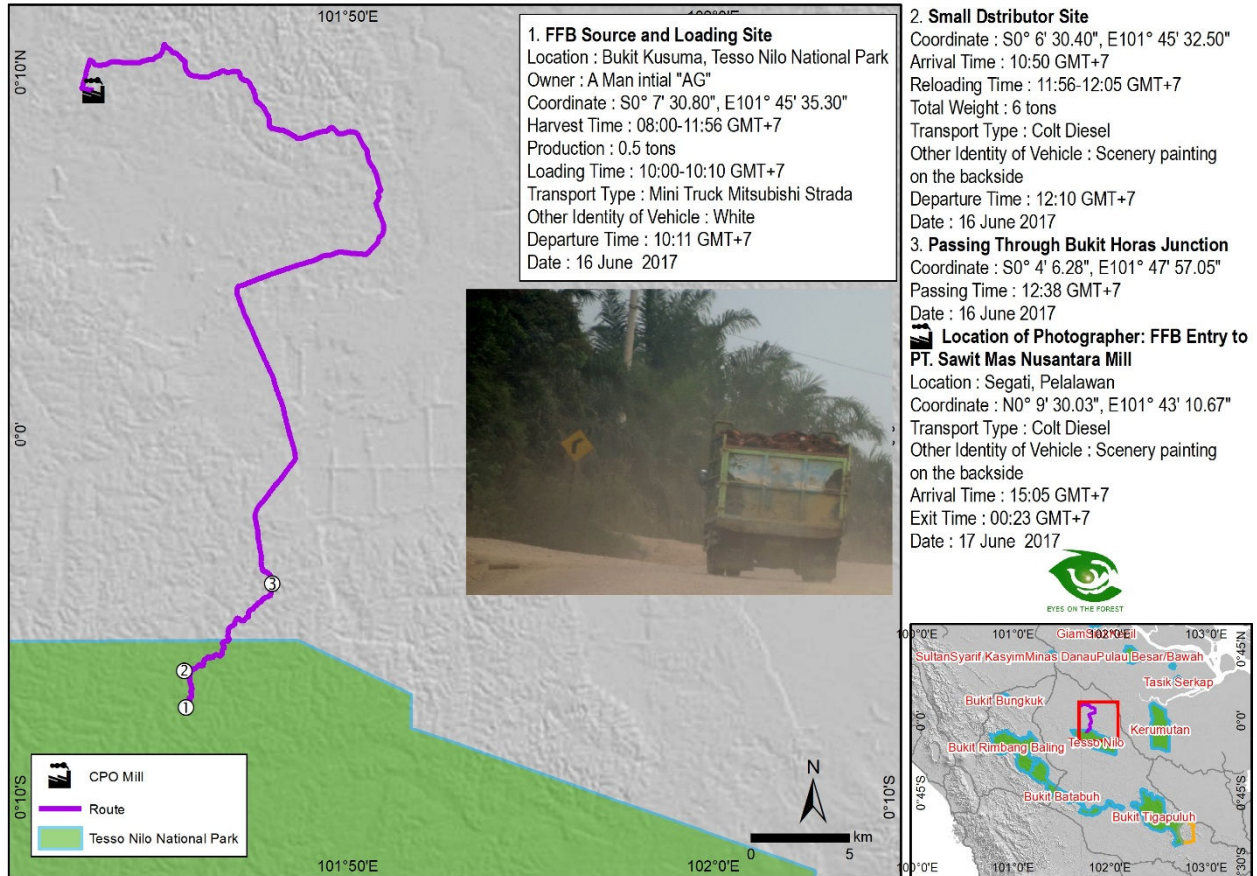
CoC 3 – Toro group to PT. Citra Riau Sarana 2 mill.



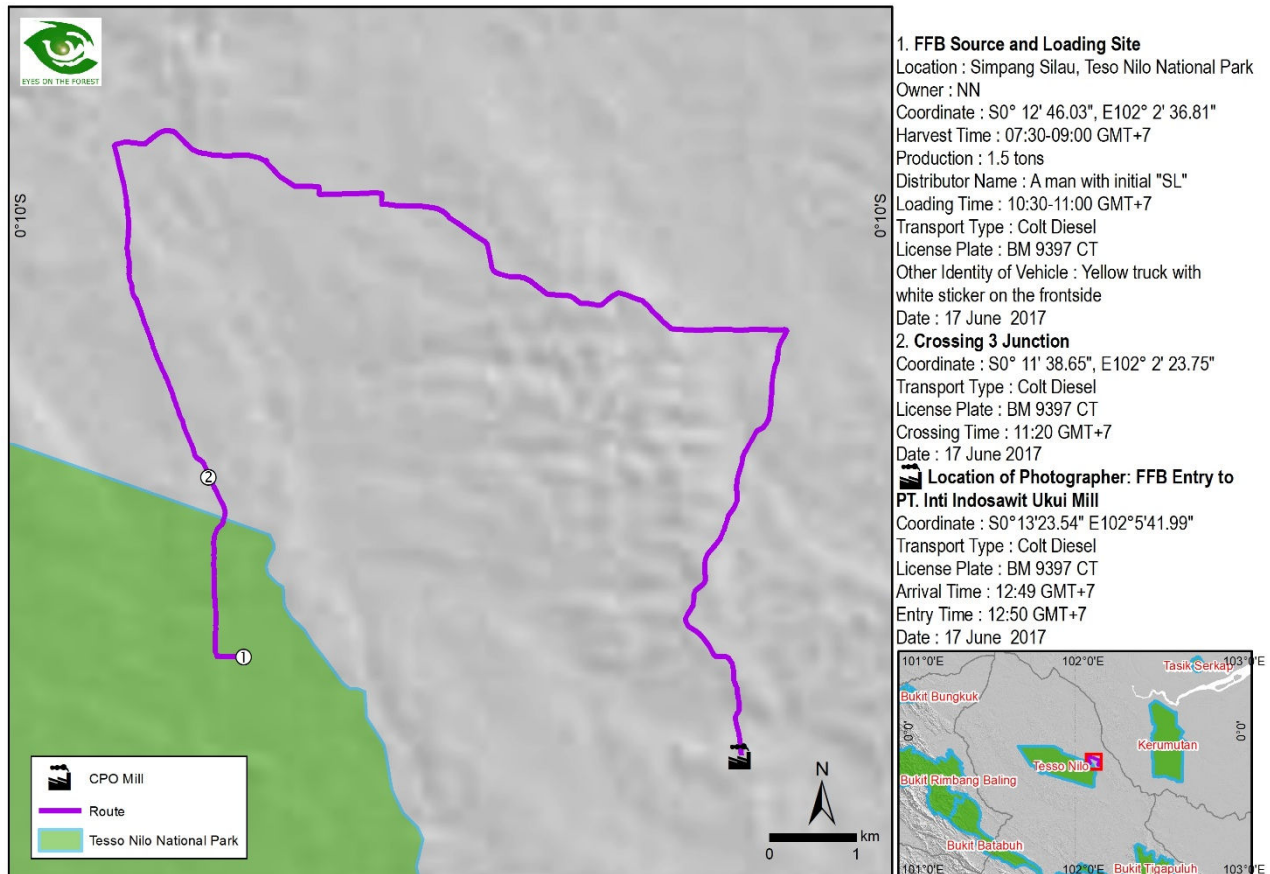
CoC 4 – Bukit Kusuma group to PT. Sawit Mas Nusantara mill.



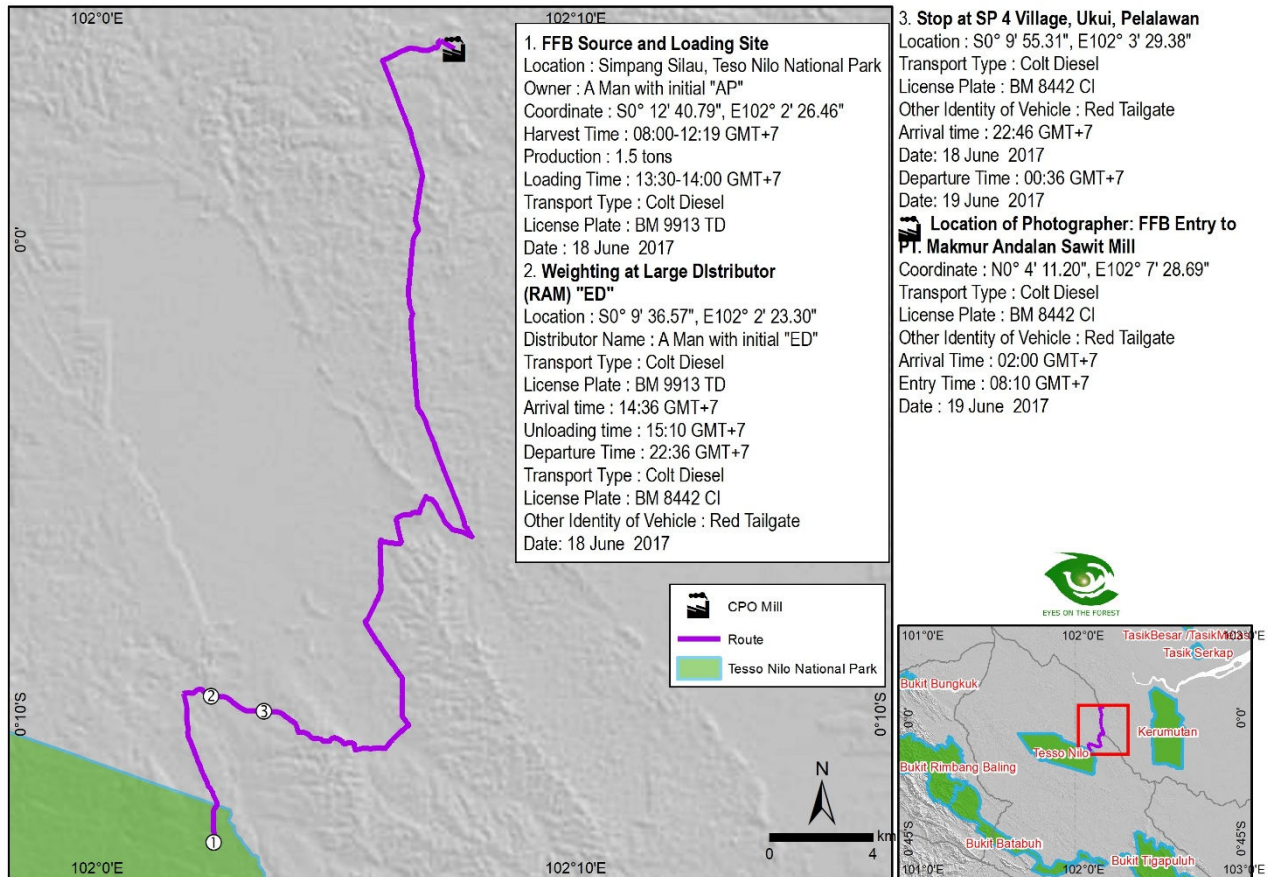
CoC 5 – Bukit Kusuma group to PT. Sawit Mas Nusantara mill.



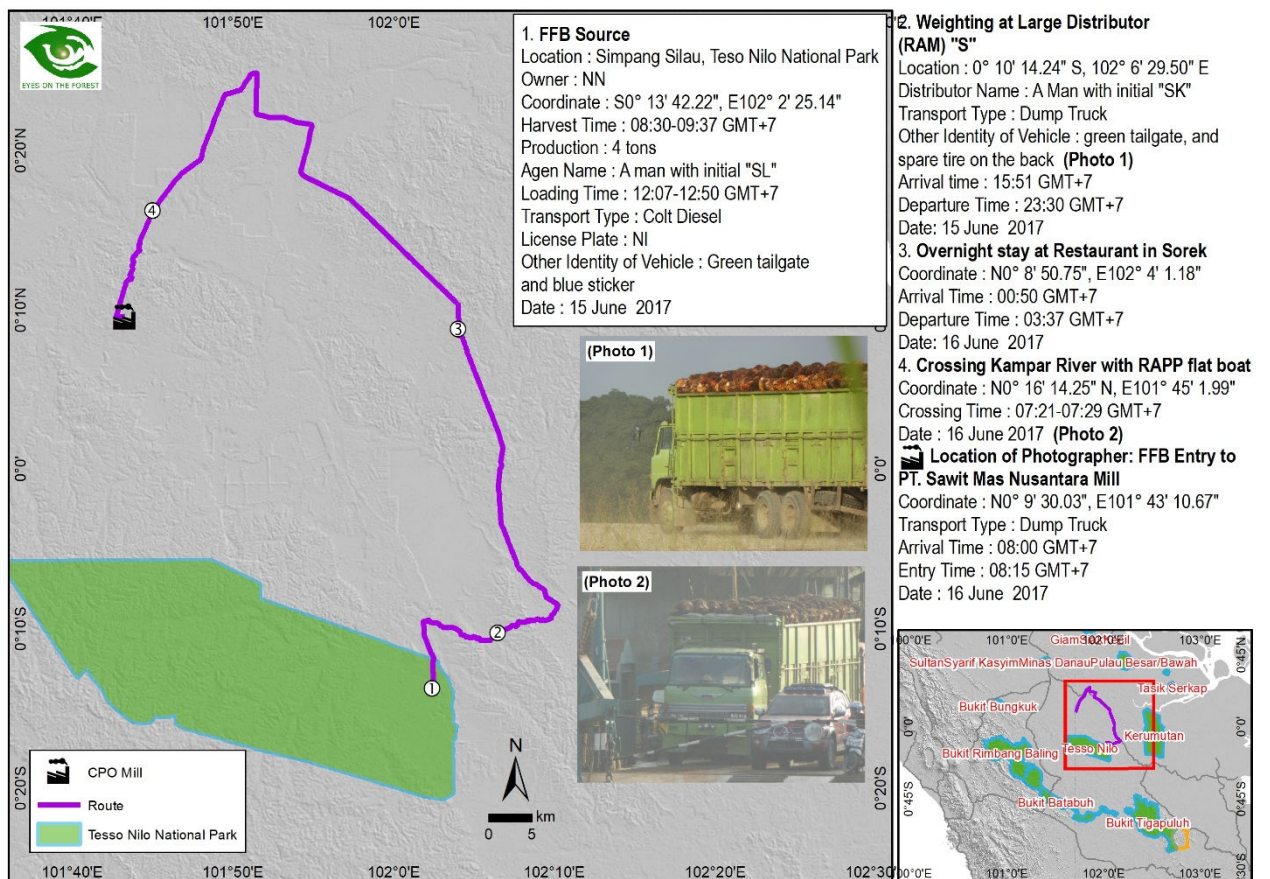
CoC 6 – Simpang Silau group to PT. Inti Indosawit Subur Ukui 1 mill.



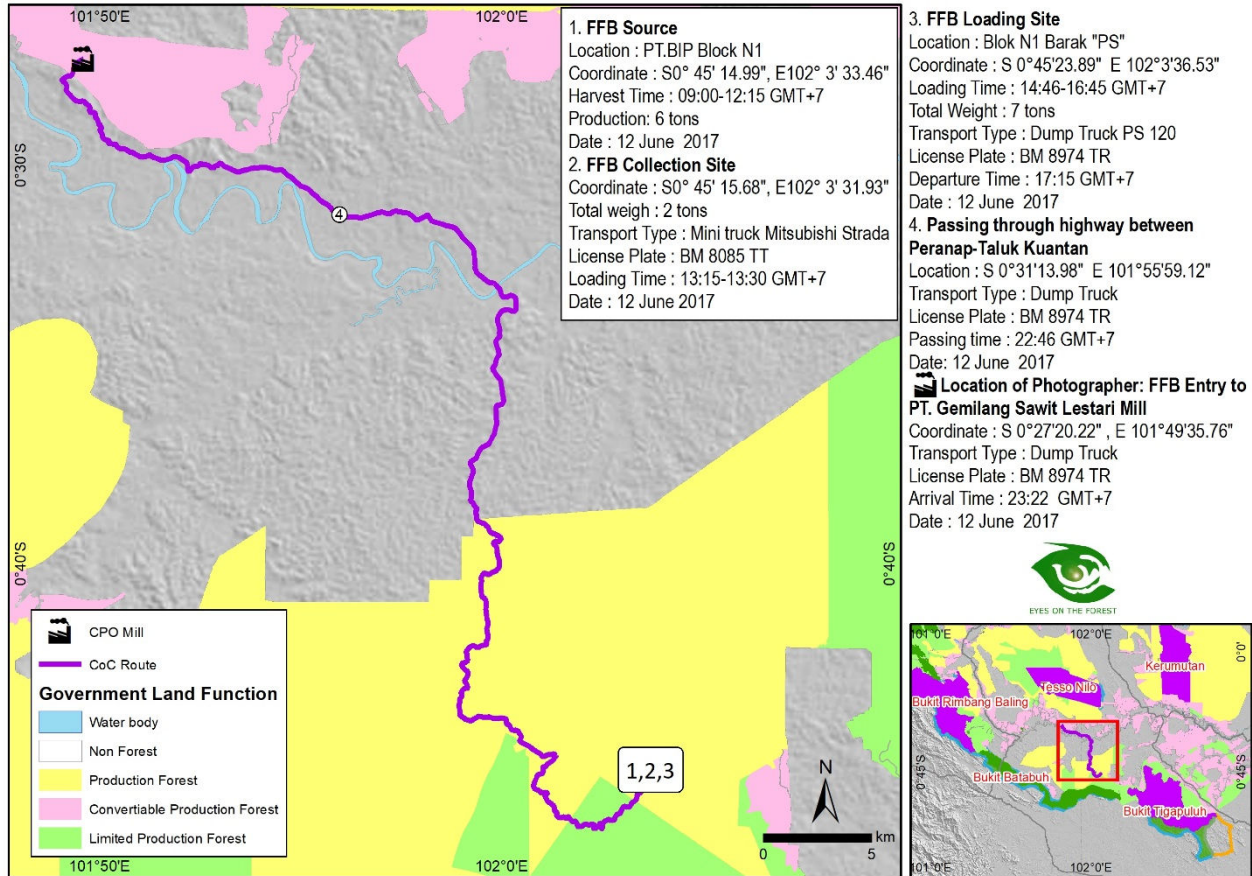
CoC 7 – Simpang Silau group to PT. Makmur Andalan Sawit mill.



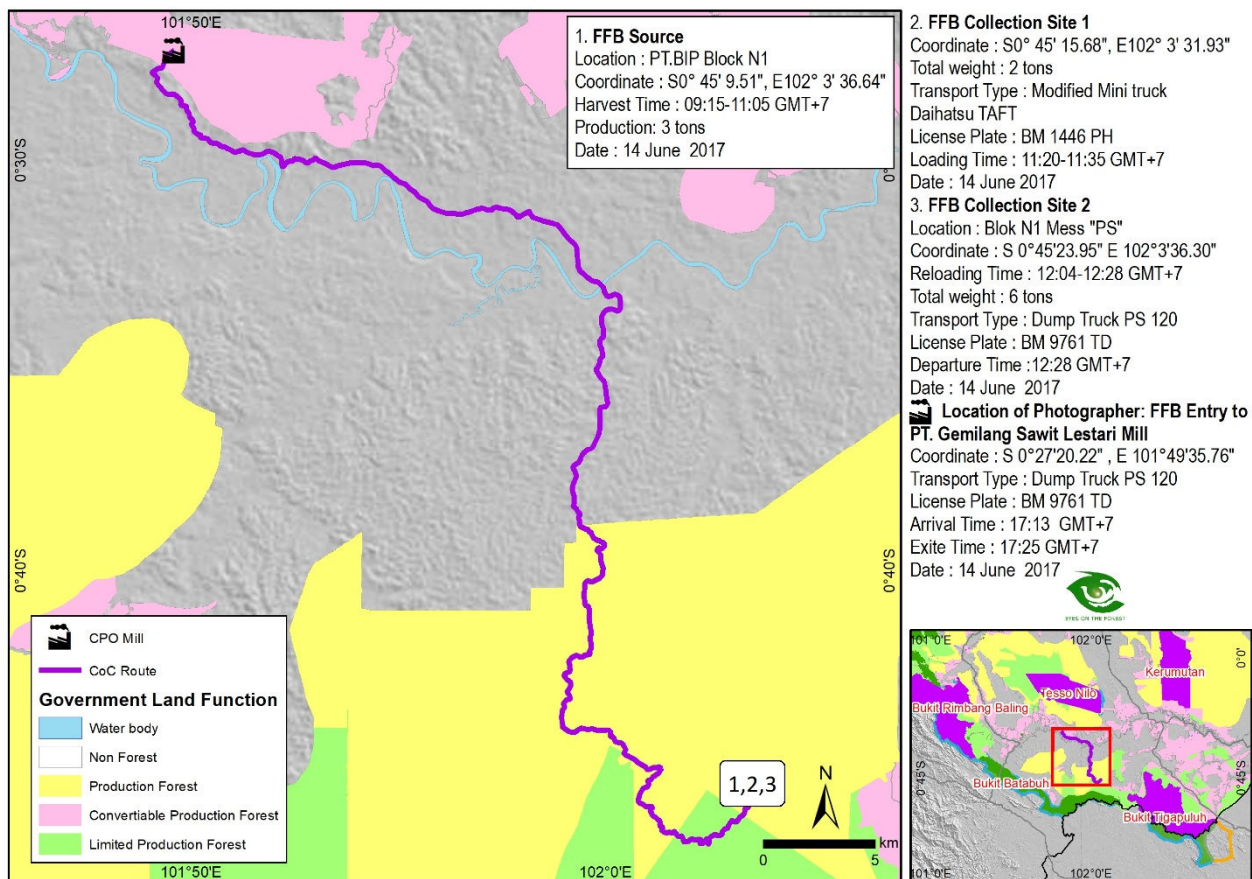
CoC 8 – Simpang Silau group to PT. Sawit Mas Nusantara mill.



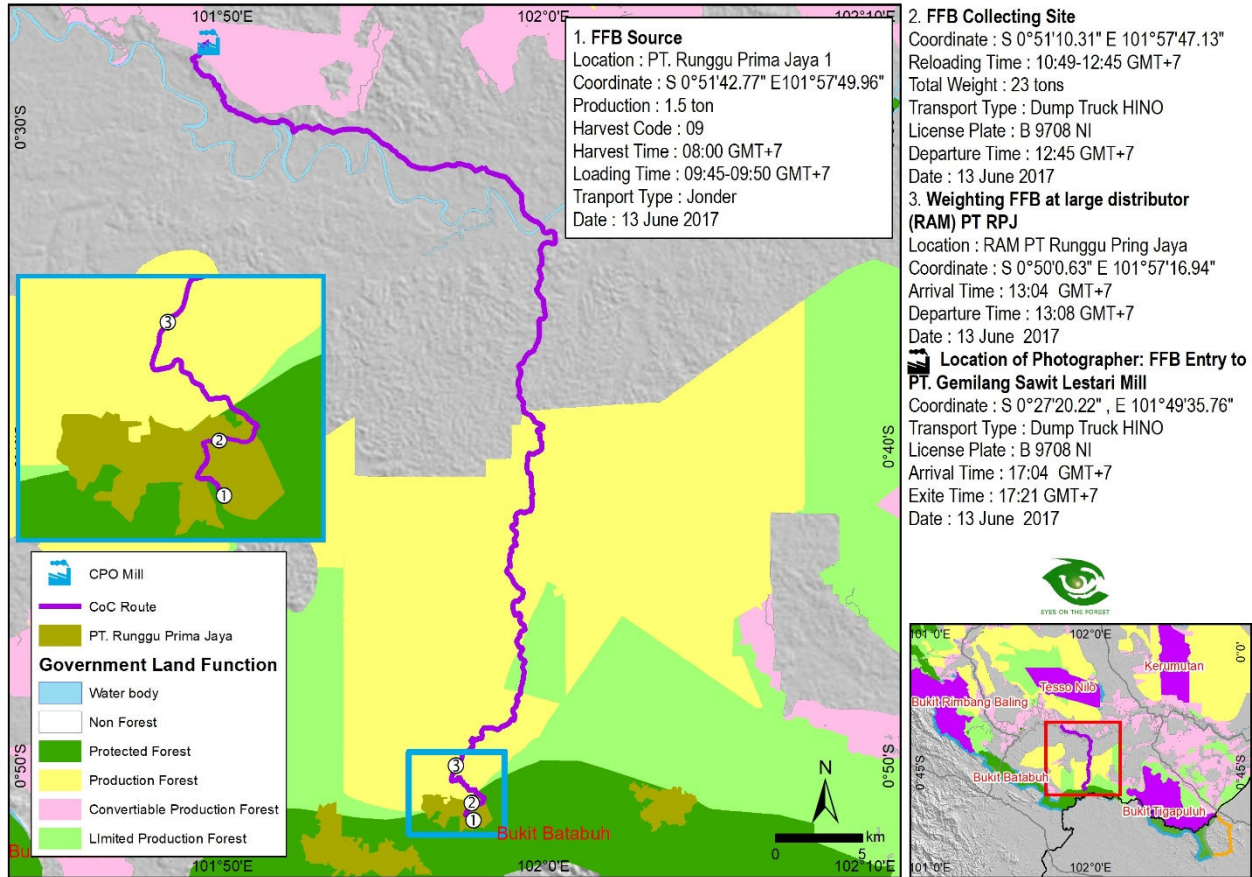
CoC 9 – PT. Bagas Indah Perkasa to PT. Gemilang Sawit Lestari mill.



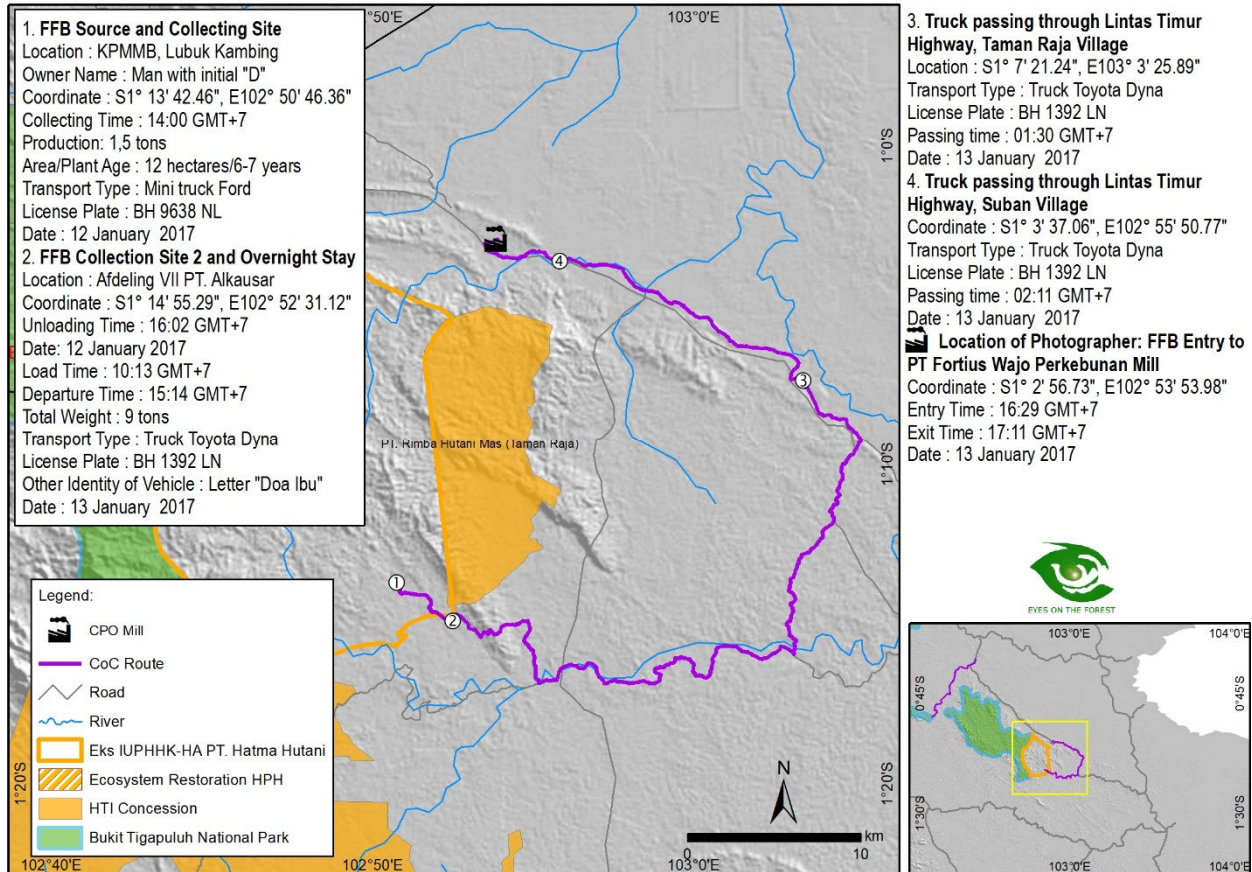
CoC 10 – PT. Bagas Indah Perkasa to PT. Gemilang Sawit Lestari mill.



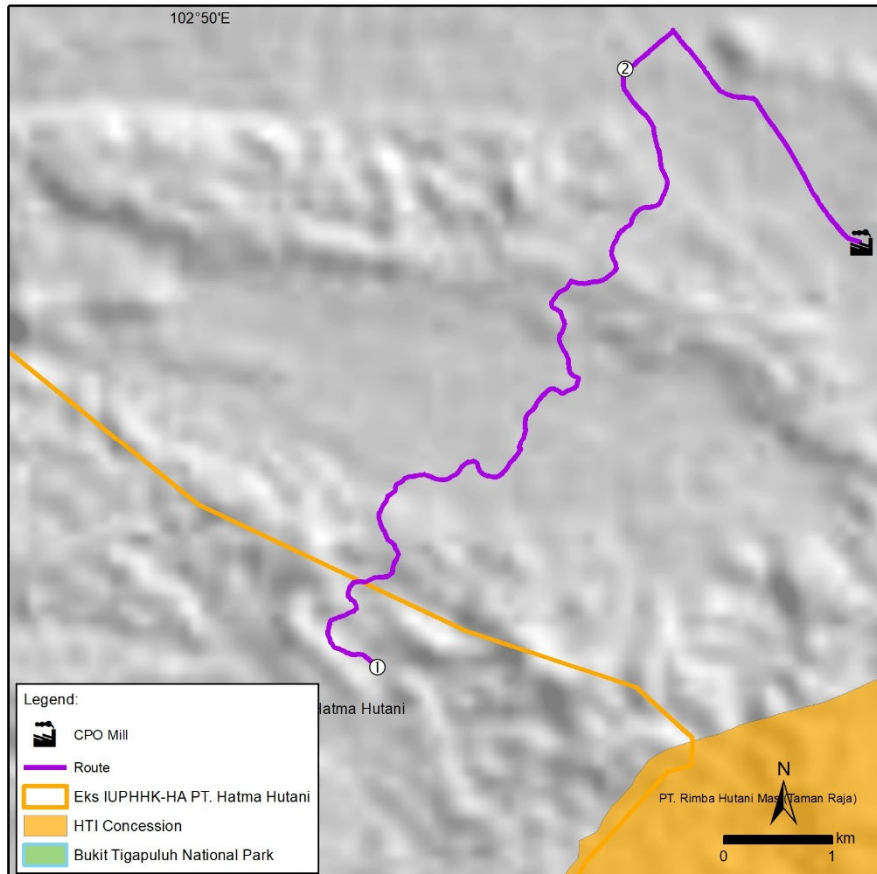
CoC 11 – PT. Runggu Prima Jaya to PT. Gemilang Sawit Lestari mill.



CoC 12 – KPMMB to PT. Fortius Wajo Perkebunan mill.



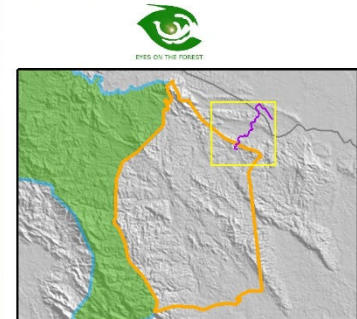
CoC 13 – Sungai Ari to PT. Persada Alam Jaya mill.



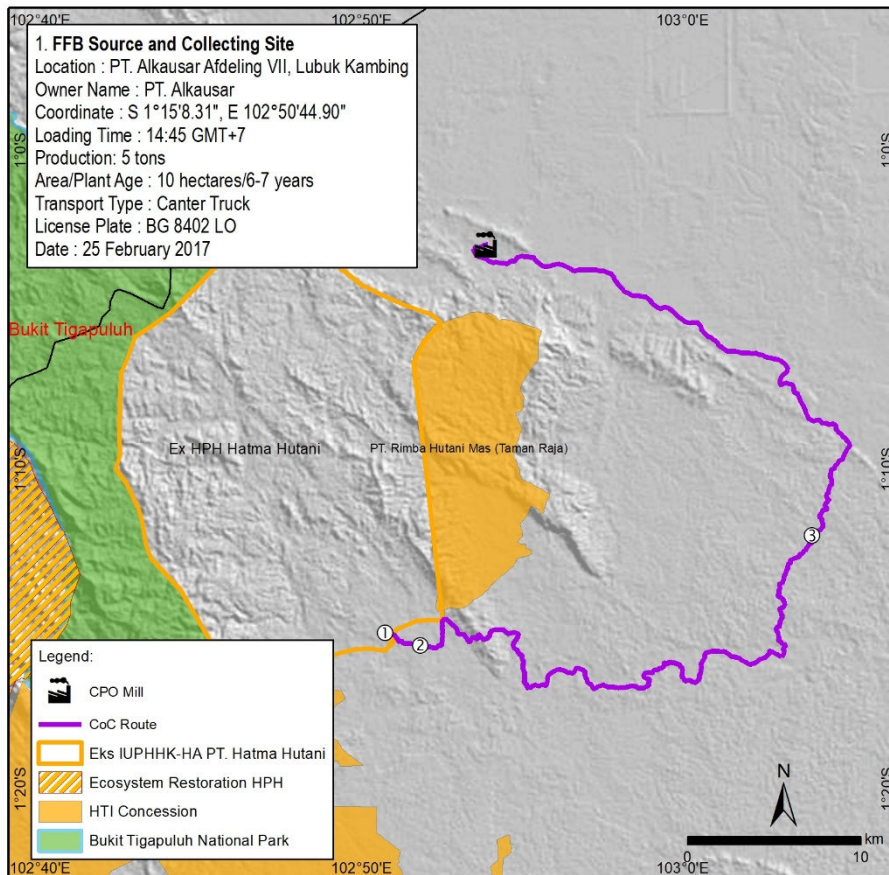
1. FFB Source and Collecting Site
 Location : Sungai Ari, Suban Village
 Owner Name : NI
 Coordinate : S 1°51'27" E 102°50'53.17"
 Loading Time : 14:15 GMT+7
 Production: 3 tons
 Area/Plant Age : 5 hectares/7 years
 Transport Type : Truck PS
 License Plate : BH 8817 EU
 Date : 22 February 2017

2. Truck passing through Simpang Rambutan, Suban Village
 Location : S 1°2'1.25" E 102°52'7.34"
 Transport Type : Truck PS
 License Plate : BH 8817 EU
 Other identity : Letter MIKAEL at front
 Passing time : 16:30 GMT+7
 Date : 22 February 2017

3. Location of Photographer: FFB Entry to PT Persada Alam Jaya Mill
 Coordinate : S 1°2'53.23" E 102°53'18.05"
 Entry Time : 16:50 GMT+7
 Exit Time : 17:22 GMT+7
 Date : 22 February 2017



CoC 14 – PT. Alkausar Afdeling VII to PT. Fortius Wajo Perkebunan mill.

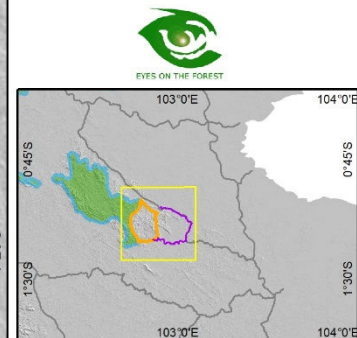


1. FFB Source and Collecting Site
 Location : PT. Alkausar Afdeling VII, Lubuk Kambing
 Owner Name : PT. Alkausar
 Coordinate : S 1°15'8.31", E 102°50'44.90"
 Loading Time : 14:45 GMT+7
 Production: 5 tons
 Area/Plant Age : 10 hectares/6-7 years
 Transport Type : Canter Truck
 License Plate : BG 8402 LO
 Date : 25 February 2017

2. FFB Collection Site 2
 Location : Afdeling VII PT. Alkausar
 Coordinate : S 1°15'31.49" E 102°51'51.07"
 Loading Time : 16:05 GMT+7
 Total Weight : 9 tons
 Transport Type : Canter Truck
 License Plate : BG 8402 LO
 Date : 25 February 2017

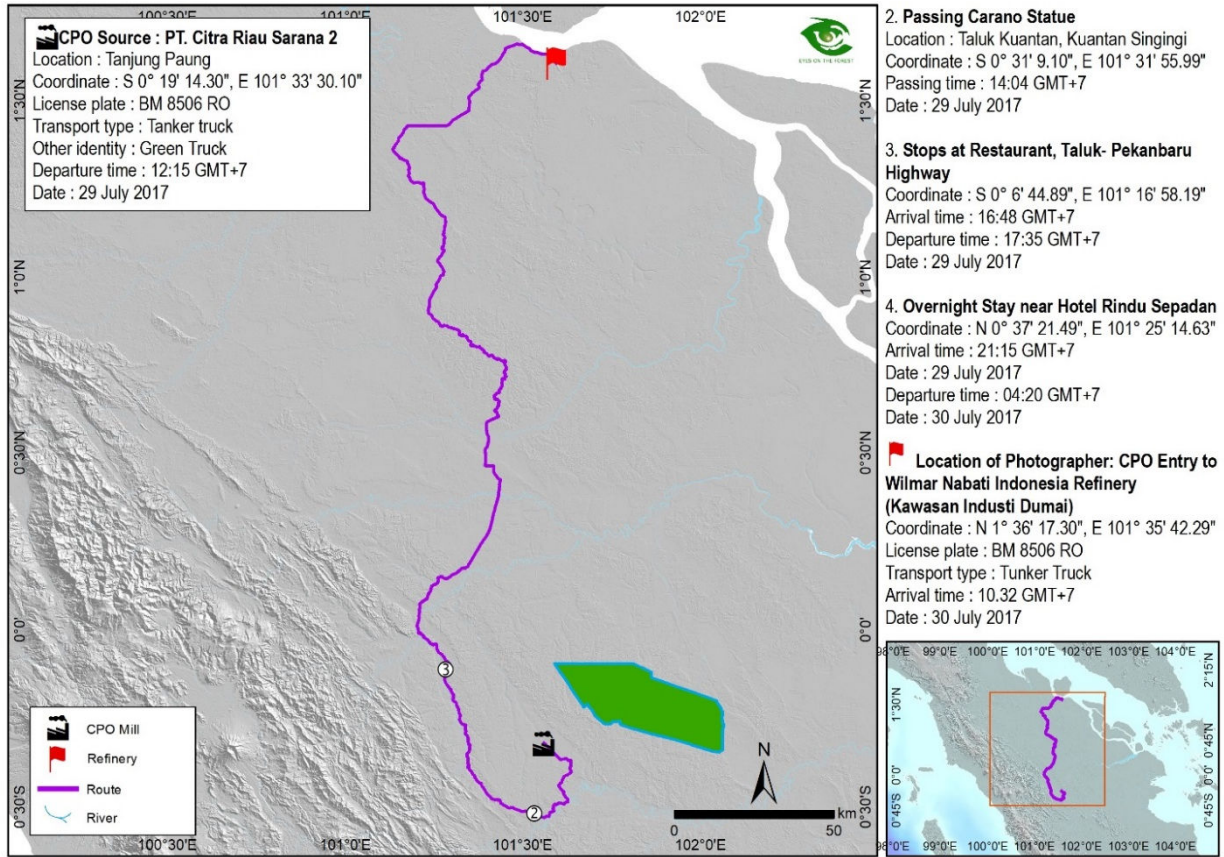
3. Overnight Stay
 Location : S 1°12'4.87" E 103°4'2.35"
 Transport Type : Canter Truck
 License Plate : BG 8402 LO
 Stopping time : 11:45 GMT+7
 Date : 25 February 2017
 Departure time : 08:15 GMT+7
 Date : 26 February 2017

4. Location of Photographer: FFB Entry to PT Fortius Wajo Perkebunan Mill
 Coordinate : S 1° 2' 56.73", E 102° 53' 53.98"
 Entry Time : 10:03 GMT+7
 Date : 26 February 2017

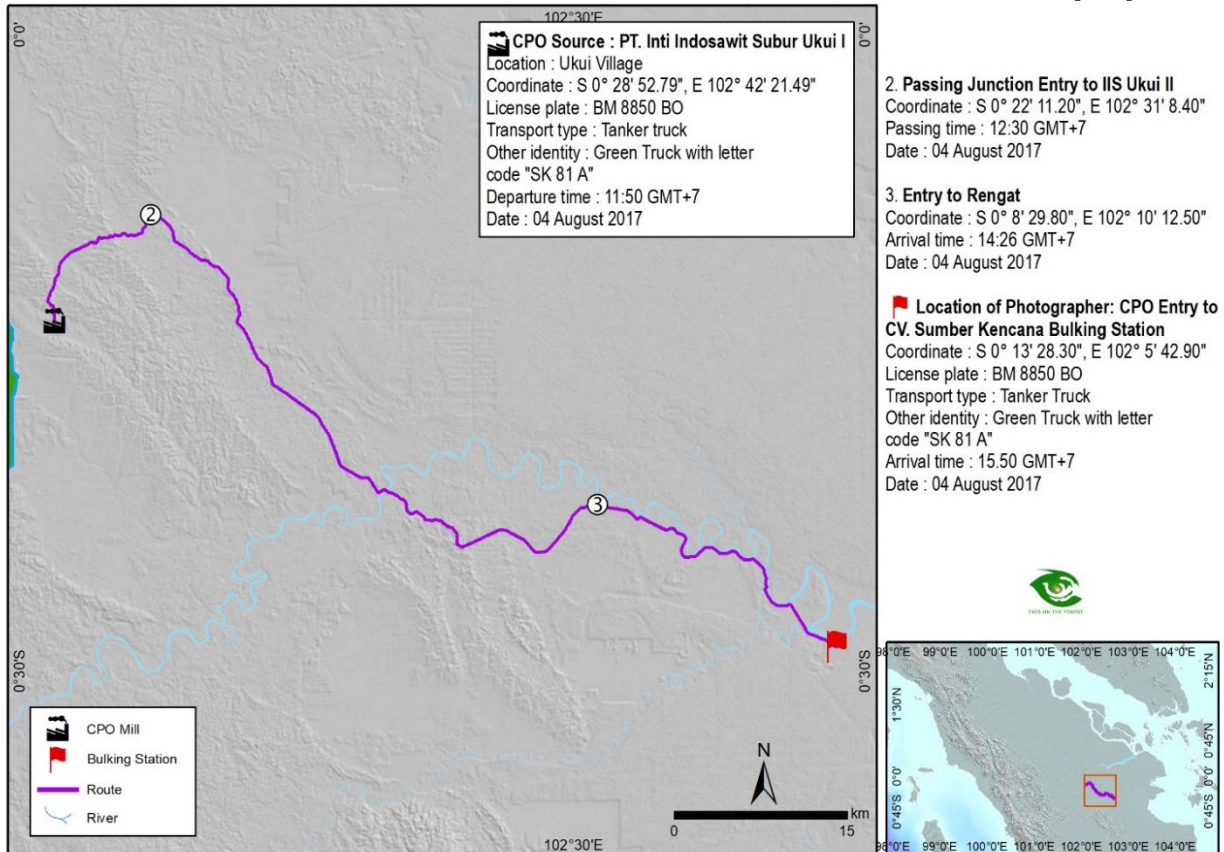


Appendix 2. Supply chains of CPO from mills who purchased illegal FFB.

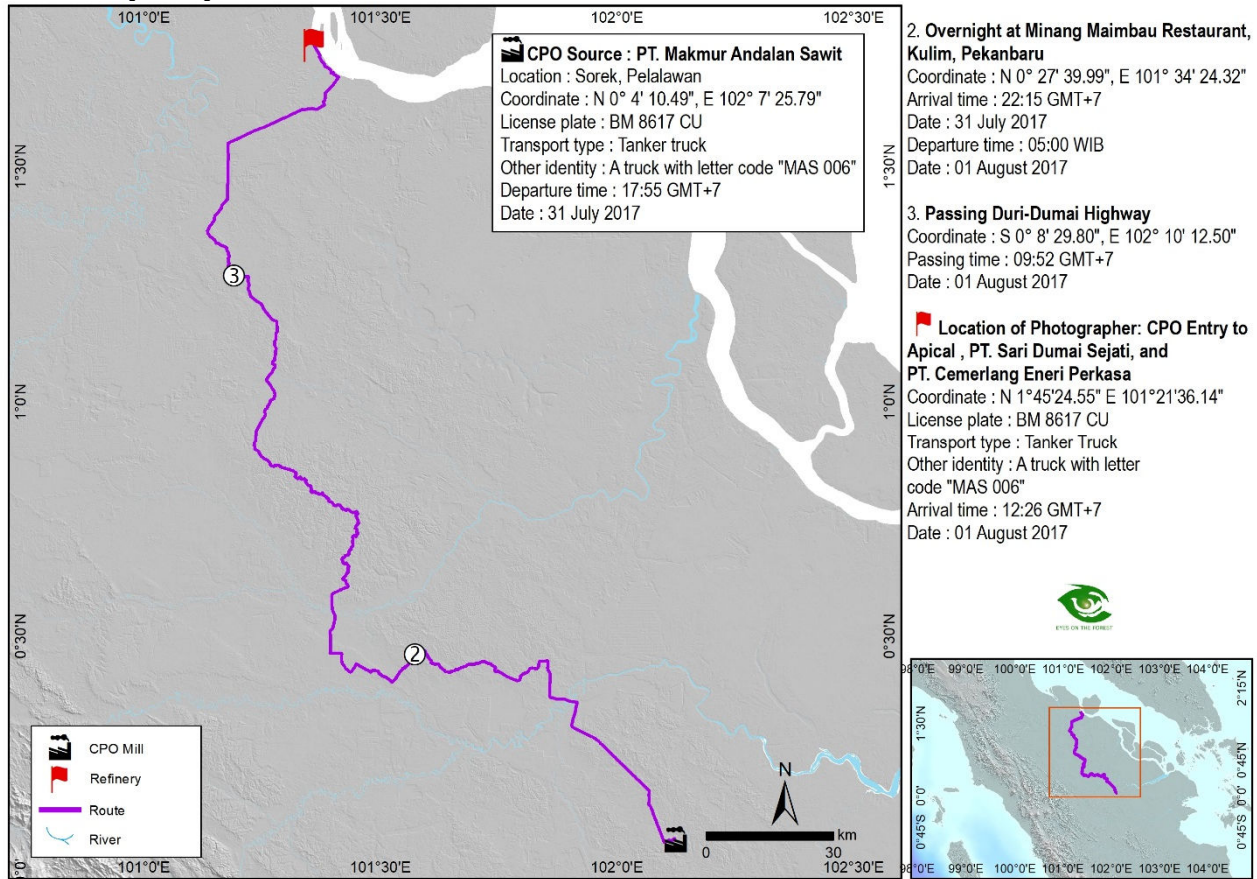
CoC 1 – PT. Citra Riau Sarana 2 mill to PT. Wilmar Nabati Indonesia Pelintung.



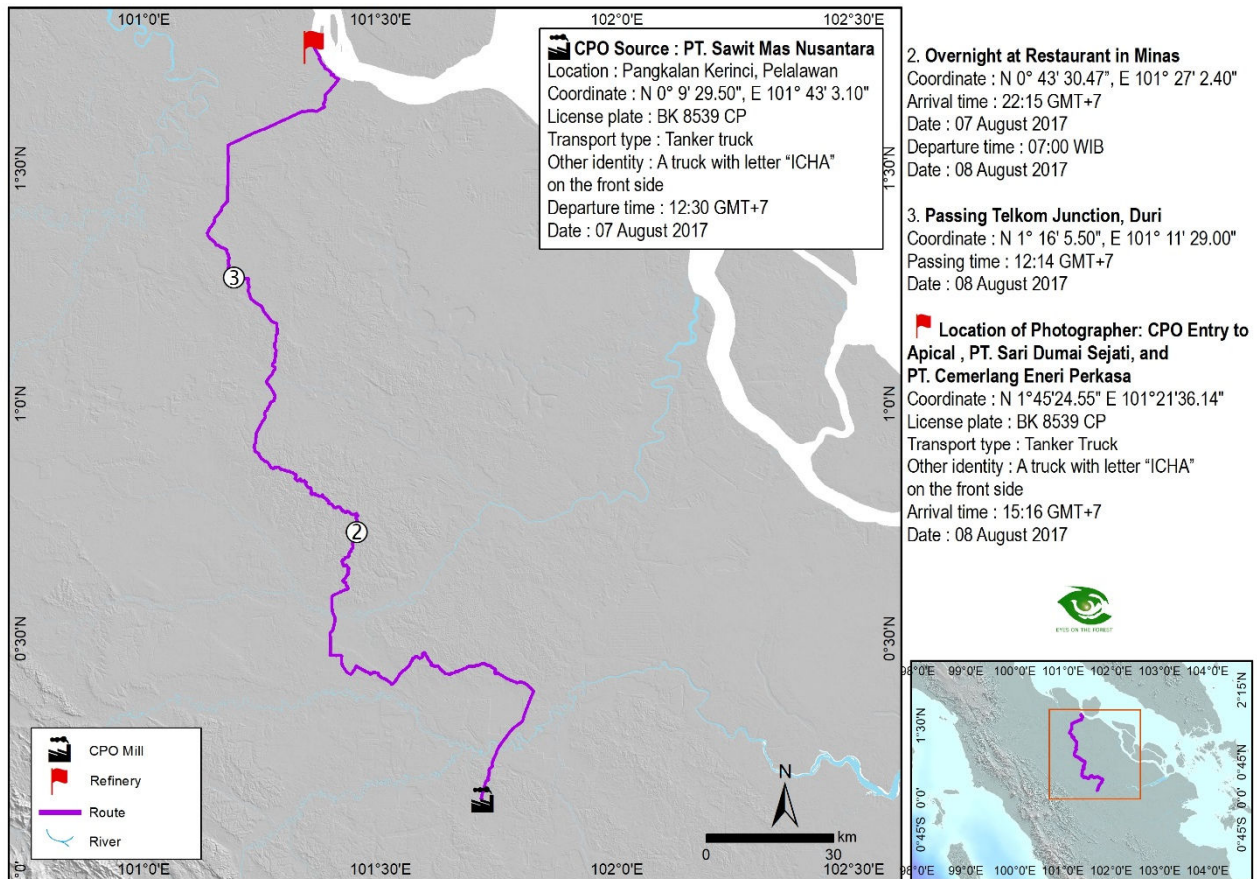
CoC 2 – PT. Inti Indosawit Subur Ukui 1 mill to PT. Sumber Kencana (SK).



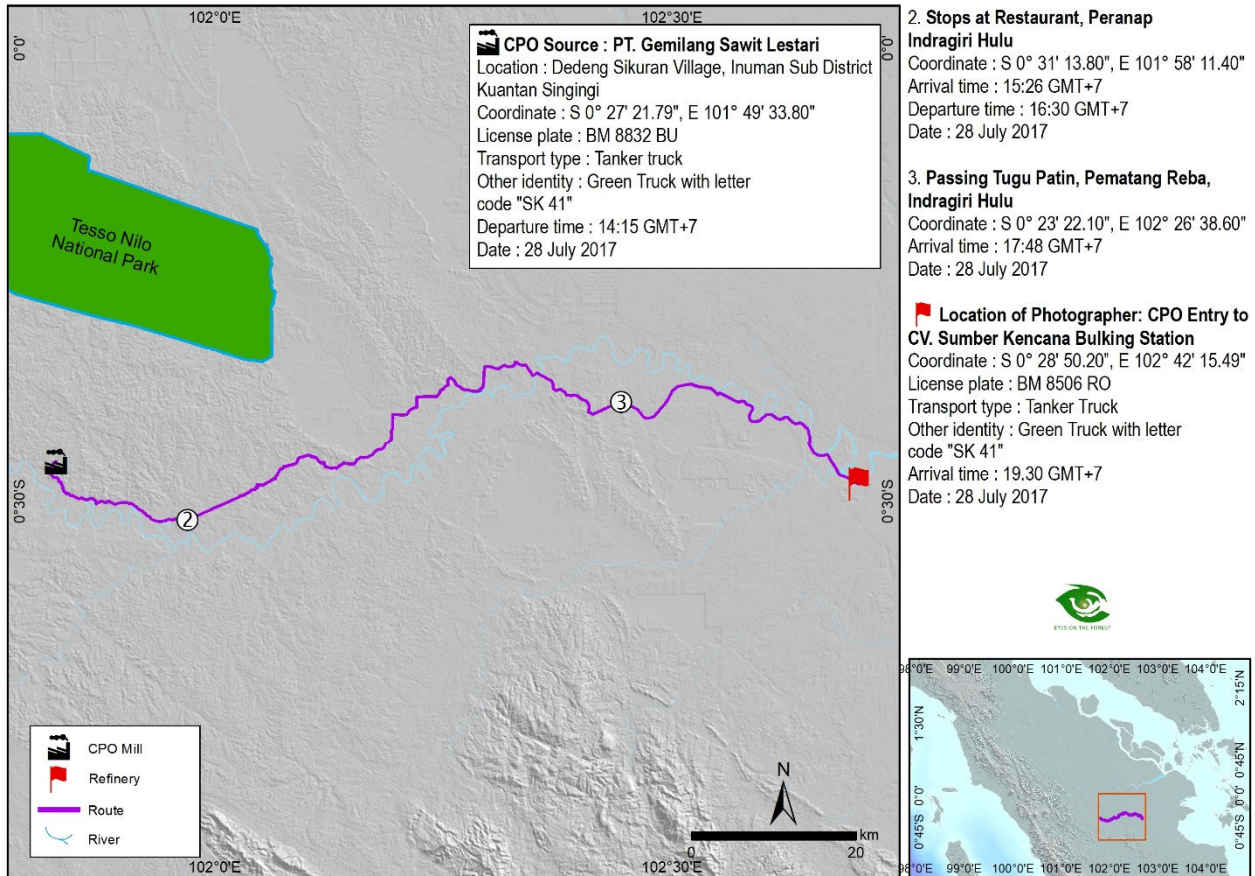
CoC 3 – PT. Makmur Andalan Sawit to PT. Sari Dumai Sejati & PT. Cemerlang Energi Perkasa (RGE).



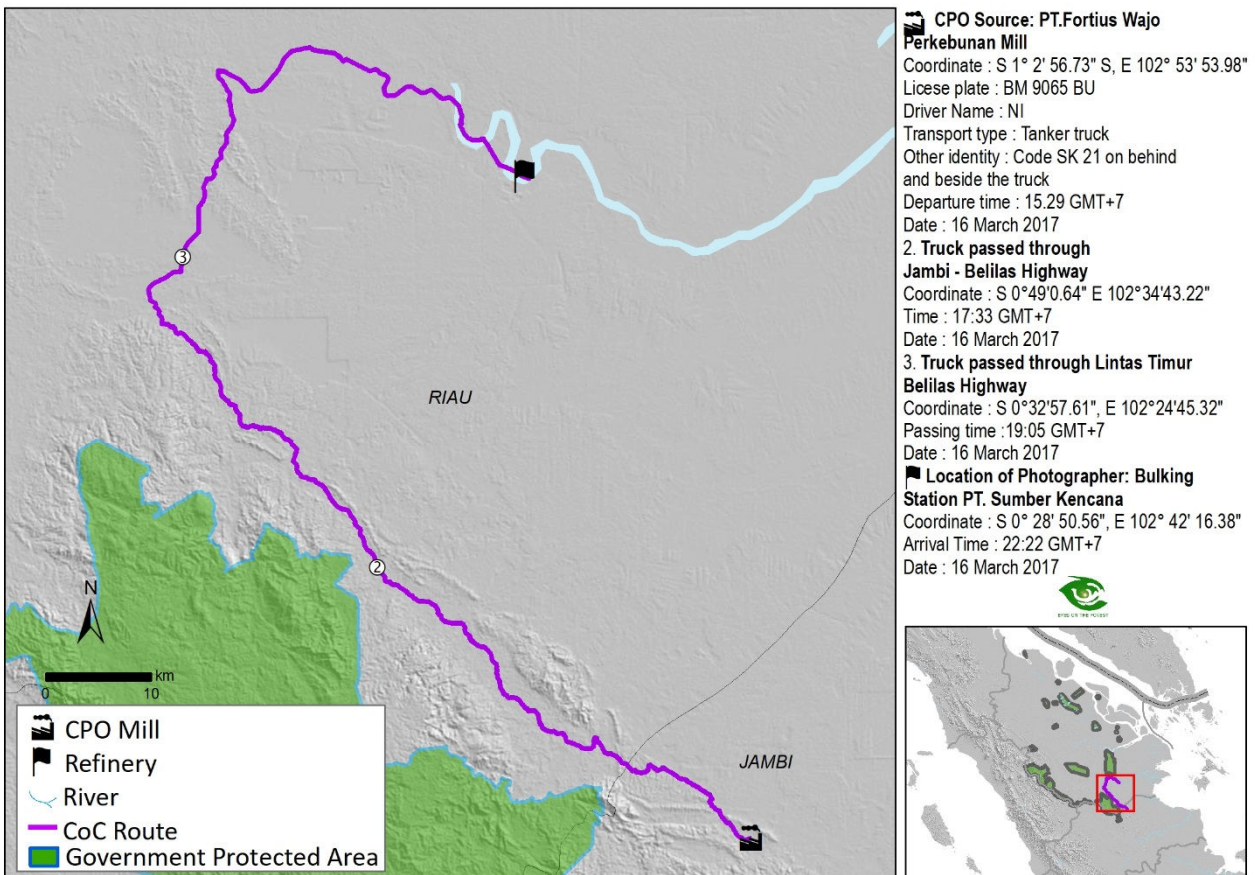
CoC 4 – PT. Sawit Mas Nusantara to PT. Sari Dumai Sejati & PT. Cemerlang Energi Perkasa (RGE).



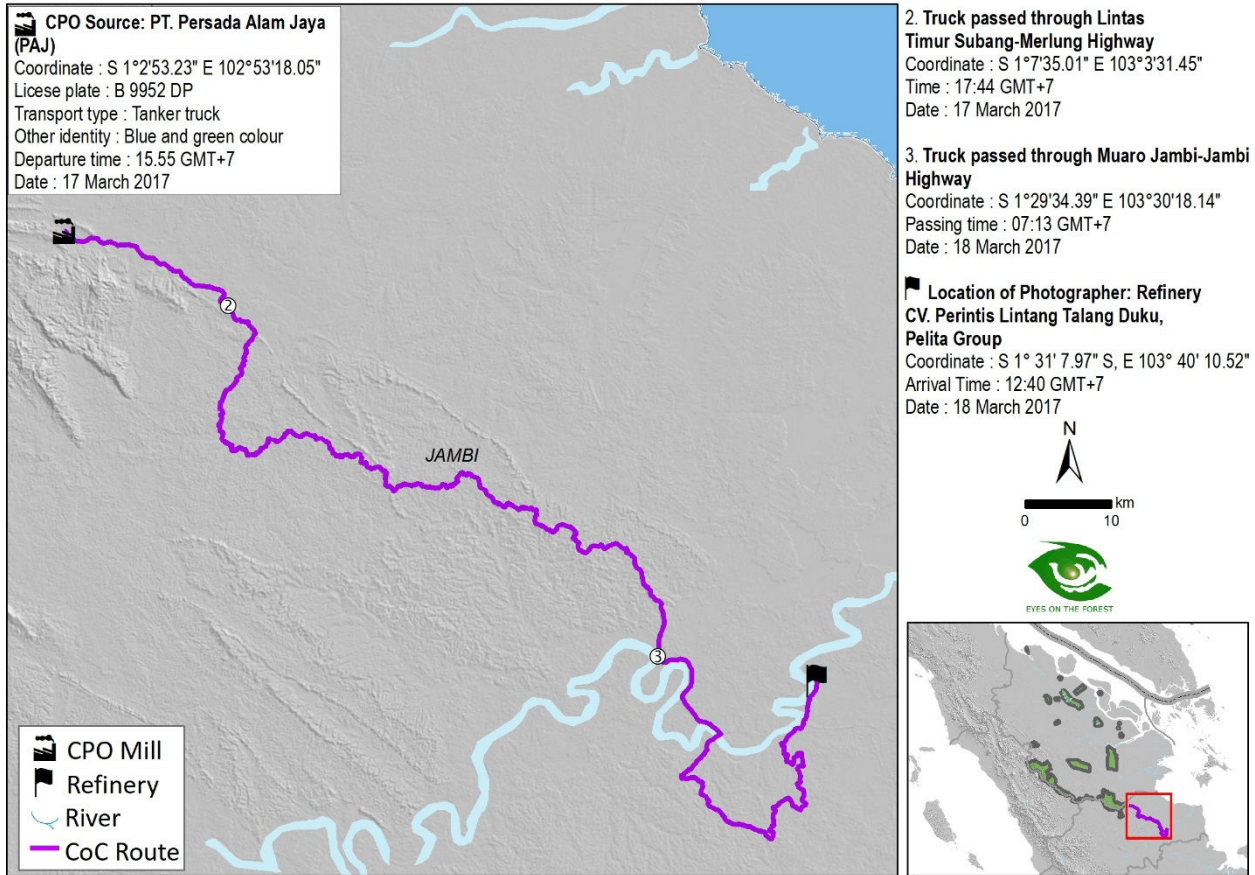
CoC 5 – PT. Gemilang Sawit Lestari mill to PT. Sumber Kencana (SK).



CoC 6 – PT. Fortius Wajo Perkebunan mill to PT. Sumber Kencana (SK).



CoC 7 – PT. Persada Alam Jaya mill to CV. Perintis Lintang Talang Duku (Pelita).



Appendix 3. Definition of traceability by RGE and Wilmar.

Table 1.—Apical subscribes to Traceability Working Group (TWG) definition of traceability which require only limited data (Source: “Traceability” page of Apical <http://www.sustainability.apicalgroup.com/traceability/>).

Category of FFB Supplier	FFB Traceability Data Required
Estate (> 25ha)	<ul style="list-style-type: none"> • Estate name • Parent company name • Certification status • % of overall FFB tonnage to mill • A GPS coordinates as a representative source location • Planted hectarage • Total concession area • FFB volume
Koperasi/Associated/Scheme/Group	<ul style="list-style-type: none"> • Number of smallholders • % of overall FFB tonnage to mill • Overall FFB volume • A GPS coordinates as a representative source location • Planted hectarage
Dealers	<ul style="list-style-type: none"> • Dealer names • % of overall FFB tonnage to mill • Overall FFB volume • GPS coordinates of first-tier dealers (office/ramp) • Number of smallholders • Village/ sub-district

Table 2.—Wilmar’s definition of traceability require even less data than RGE on all growers (Source: “Traceability back to plantation” page of Wilmar <http://www.wilmar-international.com/sustainability/progress/traceability/traceability-back-to-plantation/>).

	Estates	Smallgrowers	Smallholders	Dealers
Parent company name	Y			
Estate/grower/dealer name	Y	Y	Y	Y
GPS	Y	Y	Y	
Planted area	Y	Y	Y	
Number of growers		Y	Y	Y
Certification status	Y			
% (volume) from this source	Y	Y	Y	Y

Appendix 4. Corporate responses to this report

Prior to publication, EoF requested the Big 4 and 20 global traders and brands mentioned in the report to check the draft report and inform EoF of factual errors with supporting evidence.

Overall, the responses from the companies were positive. Many agreed with EoF recommendation to work together towards a solution, whether their links to the problems in the two landscapes are direct or indirect.

Some informed about their engagement with specific direct or indirect suppliers and/or the Sumber Kencana group highlighted in the report. One company explained that a 'Delivery Order' holder was identified and suspended. Some explained that they had stopped sourcing from mills highlighted in the report.

Many companies informed on their supply chain transparency efforts including publication of CPO supplier lists through their dashboards and use of grievance mechanisms.

Some of the Big 4 requested EoF to disclose the names of actors that are linked to illegal plantations in Tesso Nilo. That information is treated as evidence for law enforcement by government, thus formal engagement with the Tesso Nilo Task Force would be a first step for the companies to take. However, we think that the responsibility for legal supplies lies with buyers like the Big 4 and cannot be transferred to sporadic voluntary efforts like those by EoF. Corporate traceability systems have to be robust enough to ensure not only legality but also full implementation of NDPE commitments for direct and third party purchases.

Overall, we are encouraged by the responses we received and feel that the companies are taking actions. We hope that this report can trigger a more organized and intensive framework for stakeholders at all levels in the palm oil supply chain to work together and speed up the process to achieve the common goal of zero deforestation and legal supply chains. Before it is too late!

References

- ¹ Chain Reaction Research (1 November 2017) Unsustainable Palm Oil Faces Increasing Market Access Risks: NDPE Sourcing Policies Cover 74 Percent of Southeast Asia's Refining Capacity. <https://chainreactionresearch.files.wordpress.com/2017/10/unsustainable-palm-oil-faces-increasing-market-access-risks-final-1.pdf>
- ² Financial Times (13 June 2016) Cargill and Bunge refuse to cut ties with palm oil trader. <https://www.ft.com/content/aac0151e-2f13-11e6-a18d-a96ab29e3c95>
- ³ Wilmar (5 December 2013) No Deforestation, No Peat, No Exploitation Policy.
- ⁴ Musim Mas Sustainability Policy. http://www.musimmas.com/qws/slot/u50045/style/Sustainability/2.%20Sustainability%20Policy/MM%20sustainability%20policy_final.pdf
- ⁵ Golden Agri-Resources (9 February 2011) Golden Agri-Resources Initiates Industry Engagement for Forest Conservation. <http://www.goldenagri.com.sg/pdfs/News%20Releases/2011/110209%20Golden%20Agri-Resources%20Initiates%20Industry%20Engagement%20for%20Forest%20Conservation.pdf>
- ⁶ Asian Agri (September 2014) Sustainability Policy. <http://www.asianagri.com/images/pdf/2016/asian-agri-sustainability-policy-2014.pdf>
- ⁷ Apical (September 2014) Sustainability Policy. <http://www.apicalgroup.com/sustainability>
- ⁸ United Nations Headquarters (23 September 2014) Governments, Business, Civil Society and Indigenous Leaders Pledge to End Loss of Forests. <http://www.un-redd.org/portals/15/documents/ForestsPressRelease.pdf>
- ⁹ Eco-Business.com (1 July 2016) Indonesian Palm Oil Pledge disbands <http://www.eco-business.com/news/indonesian-palm-oil-pledge-disbands/>
- ¹⁰ Sime Darby website, Sustainable Palm Oil Manifesto <http://www.simedarbyplantation.com/sustainability/practices-key-initiatives/sustainable-palm-oil-manifesto>, checked on 15 October 2017.
- ¹¹ Greenpeace (19 September 2014) Palm Oil Manifesto Companies Urged to Apply Strong HCS Standards. <http://www.greenpeace.org/seasia/Press-Centre/Press-Releases/Palm-Oil-Manifesto-Companies-Urged-to-Apply-Strong-HCS-Standards/>
- ¹² Chain Reaction Research (1 November 2017)
- ¹³ WWF-Indonesia (2013) Palming Off a National Park. http://awsassets.wwf.or.id/downloads/wwf_indonesia_palming_off_a_national_park_final.pdf
- ¹⁴ Eyes on the Forest (4 September 2014) Tiger in your tank? <http://www.eyesontheforest.or.id/uploads/default/report/Eyes-on-the-Forest-Investigative-Report-Tiger-in-your-tank-September-2014.pdf>
- ¹⁵ Eyes on the Forest (2016) No One is Safe. <http://www.eyesontheforest.or.id/uploads/default/report/Eyes-on-the-Forest-Investigative-Report-No-One-is-Safe-April-20161.pdf>
- ¹⁶ Eyes on the Forest (2016), Appendix 3. Responses to this report.
- ¹⁷ Antara News (6 August 2014) Riau's two million hectares of oil palm plantation illegal. <http://www.antaraneews.com/en/news/95203/riaus-two-million-hectares-of-oil-palm-plantation-illegal-minister>
- ¹⁸ Keputusan Menteri Kehutanan Republic Indonesia Nomor: SK.673/Menhut-II/2014 tentang Perubahan Peruntukan Kawasan Hutan Menjadi Bukan Kawasan Hutan Seluas ± 1.638.249 (Satu Juta Enam Ratus Tiga Puluh Delapan Ribu Dua Ratus Empat Puluh Sembilan) Hektar, Perubahan Fungsi Kawasan Hutan Seluas ± 717.543 (Tujuh Ratus Tujuh Belas Ribu Lima Ratus Empat Puluh Tiga) Hektar dan Penunjukan Bukan Kawasan Hutan Menjadi Kawasan Hutan Seluas ± 11.552 (Sebelas Ribu Lima Ratus Lima Puluh Dua) Hektar di Provinsi Riau.
- ¹⁹ The *Forest Estate* classifies land managed by the Ministry of Forestry based on the 1986 "Consensus of Forest Land Use" (TGHK, Ministry of Forestry Decree No 173/Kpts-II/1986) and 1994 "Riau Spatial Planning" (RTRWP 1994) documents. The "Forest Estate" does not allow development of agricultural

commodities, such as oil palm plantations. The designation "Forest Estate" does not necessarily mean that the land is covered by natural forest.

²⁰ Keputusan Menteri Kehutanan Republic Indonesia Nomor: SK.878/Menhut-II/2014 tentang Kawasan Hutan Provinsi Riau.

²¹ Eyes on the Forest (2016b) 'Legalization' of palm oil plantation companies by changing the designation of Forest Estate to Non-Forest Estate in Riau Province. Investigative analysis of Remote Sensing analysis against 26 palm oil plantations. [https://www.eyesontheforest.or.id/uploads/default/report/Legalization_of_palm_oil_companies_\(Dec_20_16\).pdf](https://www.eyesontheforest.or.id/uploads/default/report/Legalization_of_palm_oil_companies_(Dec_20_16).pdf)

²² Utusanriau.com (8 March 2017) Kapolda Himbau PKS Tak Terima TBS TNTN, Sejumlah Warga Mengadu ke DPRD Pelalawan. <http://utusanriau.co/?/det/29441/kapolda-himbau-pks-tak-terima-tbs-tntn-sejumlah-warga-mengadu-ke-dprd/2017-03-08>, <http://m.riaupos.co/156442-berita-sawit-terus-merajalela-di-hutan-lindung.html>

²³ KKI Warsi, Frankfurt Zoological Society, Eyes on the Forest & WWF-Indonesia (2010) Last Chance to Save Bukit Tigapuluh. Sumatran tigers, elephants, orangutans and indigenous tribes face local extinction, along with forest. http://assets.wwfid.panda.org/downloads/last_chance_for_bukit_tigapuluh_warsi_fzs_eof_wwf_14dec2010.pdf

²⁴ Eyes on the Forest (4 September 2014)

²⁵ Undang-Undang Republik Indonesia Nomor 18 Tahun 2013 tentang Pencegahan Dan Pemberantasan Perusakan Hutan. http://www.dpr.go.id/dokidih/document/uu/UU_2013_18.pdf English translation "The Prevention and Eradication of Forest Destruction (Law No. 18/2013 dated August 6, 2013) is available at: <http://faolex.fao.org/docs/pdf/ins137703.pdf>

²⁶ English translation published by FAO: <http://faolex.fao.org/docs/pdf/ins137703.pdf>

²⁷ WWF-Indonesia (2013)

²⁸ Eyes on the Forest (2016)

²⁹ Wilmar International Limited (29 December 2014) Asset Acquisitions and Disposals :: Notification on Wilmar subsidiaries and associated companies. http://media.corporate-ir.net/media_files/IROL/16/164878/SGX/2014/SGX_Announcement_Notification_on_WIL_subs_and_asso_cos_dd_29Dec2014.pdf

³⁰ WWF-Indonesia (2013)

³¹ Eyes on the Forest (2016)

³² Eyes on the Forest (2016)

³³ Eyes on the Forest (2016)

³⁴ Wilmar (5 December 2013) No Deforestation, No Peat, No Exploitation Policy writes: "All provisions in this policy, with no exception, apply to: All Wilmar operations worldwide, including those of its subsidiaries, any refinery, mill or plantation that we own, manage, or invest in, regardless of stake. All third party suppliers from whom we purchase or with whom we have a trading relationship." It also writes "In addition to immediately shifting development activities away from HCS, HCV, and peatland areas upon announcement of this policy, we expect suppliers to be fully compliant with all provisions of this policy by December 31, 2015"

³⁵ Wilmar Country Statistics Q2 2017 on Traceability. http://www.wilmar-international.com/sustainability/wp-content/uploads/2017/07/Country-Statistics_Q2-2017-Link-to-Click.pdf, checked on 13 October 2017.

³⁶ Wilmar International Limited (2017) Sustainability Report 2016. Chapter on Supply Chain and Traceability, P. 31-35. <http://www.wilmar-international.com/sustainability/wp-content/uploads/2017/08/Wilmar-SR-2016-Final.pdf>

³⁷ Eyes on the Forest (2016), Appendix 3. Responses to this report.

³⁸ WWF-Indonesia (2013)

³⁹ Eyes on the Forest (2014)

⁴⁰ Eyes on the Forest (2016)

- ⁴¹ Asian Agri (2017) Sustainability Report 2015-2016.
www.asianagri.com/images/pdf/2016/sustainability_report_2015_2016.pdf
- ⁴² Asian Agri (2017) Sustainability Report 2015-2016.
www.asianagri.com/images/pdf/2016/sustainability_report_2015_2016.pdf
- ⁴³ http://www.ispo-org.or.id/index.php?option=com_content&view=article&id=114:sertifikasi&catid=10&Itemid=279&showall=&limitstart=9&lang=ina
- ⁴⁴ http://www.ispo-org.or.id/index.php?option=com_content&view=article&id=114:sertifikasi&catid=10&Itemid=279&showall=&limitstart=9&lang=ina
- ⁴⁵ http://www.ispo-org.or.id/index.php?option=com_content&view=article&id=114:sertifikasi&catid=10&Itemid=279&showall=&limitstart=5&lang=ina
- ⁴⁶ <http://mutucertification.com/wp-content/uploads/2015/09/SPO-4019-Jurnal-ISPO-DESEMBER-2016.pdf>
- ⁴⁷ <http://mutucertification.com/wp-content/uploads/2015/09/SPO-4019-Jurnal-ISPO-DESEMBER-2016.pdf>
- ⁴⁸ http://www.ispo-org.or.id/index.php?option=com_content&view=article&id=114:sertifikasi&catid=10&Itemid=279&showall=&limitstart=10&lang=ina
- ⁴⁹ <http://www.rspo.org/members/88/Wilmar-International-Limited>
- ⁵⁰ WWF-Indonesia (2013)
- ⁵¹ Eyes on the Forest (2016)
- ⁵² <http://www.rspo.org/members/836/AAA-Oils-Fats-Pte.-Ltd>
- ⁵³ <http://www.apicalgroup.com/>
- ⁵⁴ Eyes on the Forest (2016)
- ⁵⁵ Eyes on the Forest (2014)
- ⁵⁶ Eyes on the Forest (2016)
- ⁵⁷ SK Group website, Our Valued Customers: http://www.skgroup.co.id/customers.php?customers&language=en_US, checked on 12 October 2017. As of 2 June 2018, the website is not active.
- ⁵⁸ <http://www.wilmar-international.com/sustainability/supply-chain-map/> (all 14 facilities in Indonesia were checked on 16 November 2017. WNI = PT Wilmar Nabati Indonesia)
- ⁵⁹ <https://goldenagri.com.sg/sustainability-dashboard/supply-chain-map> (all 8 facilities in Indonesia were checked on 11 October 2017)
- ⁶⁰ <http://www.sustainability.apicalgroup.com/supply-chain-map/> (all 4 facilities in Indonesia were checked on 11 October 2017)
- ⁶¹ <http://www.musimmas.com/sustainability/traceable-supply-chain/supply-chain-map> (all 16 facilities in Indonesia were checked on 11 October 2017. IBP = Inti Benua Perkasatama)
- ⁶² Musim Mas (4 June 2018) explained to EoF that PT. Gemilang Sawit Lestari was listed as a supplier for the period as the delivery of a 2016 contract was done on early January 2017 and that since then, there was no new contract and delivery.
- ⁶³ See for example Rainforest Action Network (2014) The Last Place on Earth – Exposing the Threats to the Leuser Ecosystem https://d3n8a8pro7vhm.cloudfront.net/rainforestactionnetwork/pages/2782/attachments/original/1415727823/Last_Place_On_Earth_Report_Nov2014_Low.pdf?1415727823 and Rainforest Action Network (2017) Leuser Watch. PT. Agra Bumi Niaga: Destroying elephant habitat while breaching the Indonesian Government Moratorium on Forest Clearance for Palm Oil. https://d3n8a8pro7vhm.cloudfront.net/rainforestactionnetwork/pages/17392/attachments/original/1486495650/RAN_Leuser_Watch_PT_Agra_Bumi_Niaga_20170207.pdf?1486495650

- ⁶⁴ AAK (No date) AAK mill list. <https://aak.com/siteassets/sustainable-growth/aak-public-mill-list.pdf>, checked on 21 March 2018.
- ⁶⁵ ADM (No date) Supply Chain Map (<https://www.adm.com/sustainability/sustainability-progress-tracker/palm-oil/supply-chain-map>), checked on 10 March 2018
- ⁶⁶ Bunge (No date) Supply chain during Q3 2017. (https://www.bunge.com/sites/default/files/mill_list.q32017.pdf posted at its Palm oil dashboard <https://www.bunge.com/sustainability/palm-oil-dashboard>), checked on 10 March 2018.
- ⁶⁷ Bunge Lodders Croklaan (No date) List of Mills (<http://europe.bungeloders.com/taking-responsibility/list-of-mills/>), checked on 10 March 2018.
- ⁶⁸ Bunge (No date) Supply chain during Q3 2017. (https://www.bunge.com/sites/default/files/mill_list.q32017.pdf posted at its Palm oil dashboard <https://www.bunge.com/sustainability/palm-oil-dashboard>), checked on 10 March 2018.
- ⁶⁹ Bunge Lodders Croklaan (No date) List of Mills (<http://europe.bungeloders.com/taking-responsibility/list-of-mills/>), checked on 10 March 2018.
- ⁷⁰ Cargill (No date) Full list of the mills in Cargill's supply chain (<https://secure1.foodreg.net/ksportal/web/cargill/mill-list>) and Cargill (No date) Supply Chain Map (<https://secure1.foodreg.net/ksportal/web/cargill/supply-chain-map>), checked on 10 March 2018.
- ⁷¹ Colgate-Palmolive (February 2018) Colgate-Palmolive's largest suppliers for palm oil and palm kernel oil and mills. https://www.colgatepalmolive.com/content/dam/cp-sites/corporate/corporate/en_us/corp/locale-assets/pdf/Statement_Palm_Oil_Mills_Disclosure_Feb_12_2018.pdf, checked on 20 March 2018.
- ⁷² Colgate Palmolive (No date) Colgate Palmolive List of Mills as of 2017 https://www.colgatepalmolive.com/content/dam/cp-sites/corporate/corporate/en_us/corp/locale-assets/pdf/ColgatePalmolive-List-of-Mills.pdf, checked on 20 March 2018.
- ⁷³ General Mills (No date) General Mills global direct palm oil suppliers (as of December 31, 2017). <https://www.generalmills.com/en/News/Issues/palm-oil-statement/current-direct-suppliers>, checked on 20 March 2018.
- ⁷⁴ <https://www.generalmills.com/~media/Files/Issues/aak-public-mill-list.pdf?la=en>, checked on 20 March 2018.
- ⁷⁵ <https://www.generalmills.com/~media/Files/Issues/PalmOil%20MasterList%20318.pdf?la=en>, checked on 20 March 2018.
- ⁷⁶ Kellogg (2018) Kellogg Extended Supply Chain Mill List. http://www.kelloggcompany.com/content/dam/kelloggcompanyus/corporate_responsibility/pdf/2018/KelloggExtendedSupplyChainMill_List.pdf, checked on 17 May 2018.
- ⁷⁷ Mars writes “*Please note we have withheld allocation to IOI until end January, depending on the development of the IOI Pelita case.”
- ⁷⁸ Mars (January 2018) Mars, Incorporated. Update on Sustainable Palm Oil Sourcing. [http://www.mars.com/docs/default-source/Policies-and-Practices/mars-palm-update-\(january-2018\).pdf?sfvrsn=2](http://www.mars.com/docs/default-source/Policies-and-Practices/mars-palm-update-(january-2018).pdf?sfvrsn=2)
- ⁷⁹ Mars (February 2018) Mars' Suppliers – 2016 Full Mill List. <http://www.mars.com/global/about-us/policies-and-practices/palm-oil-policy>, checked on 20 March 2018.
- ⁸⁰ Mondelez (February 2018) Mondelez International Palm Oil Supplier List. http://www.mondelezinternational.com/~media/mondelezcorporate/uploads/downloads/supplier_list.pdf?la=en, checked on 20 March 2018.
- ⁸¹ Mondelez (March 2018) Mills Data. http://www.mondelezinternational.com/impact/sustainable-resources-and-agriculture/~media/mondelezcorporate/uploads/downloads/Mills_Data.pdf?la=en, checked on 20 March 2018.
- ⁸² Nestle (no date) Nestle Supply Chain Map, at <http://nestepalmoildashboard.com/>, checked on 21 March 2018.
- ⁸³ Nestlé (No date) Palm oil (<https://www.nestle.com/csv/communities/responsible-sourcing/palm-oil>), Nestlé (February 2018) Snapshot November 2017 (<https://www.nestle.com/asset-library/documents/creating-shared-value/responsible-sourcing/list-mills-february-2018.pdf>), checked on 10 March 2018.

- ⁸⁴ Nestlé (No date) Palm oil (<https://www.nestle.com/csv/communities/responsible-sourcing/palm-oil>), Nestlé (February 2018) Snapshot November 2017 (<https://www.nestle.com/asset-library/documents/creating-shared-value/responsible-sourcing/list-mills-february-2018.pdf>), checked on 10 March 2018.
- ⁸⁵ Olam (No date) Olam's list of supplying mills (2016 & 2017). <http://49tmko49h46b4e0czy3rlqaye1b.wpengine.netdna-cdn.com/wp-content/uploads/2018/01/Third-Party-Supplier-Mill-List-12-Jan-2018.pdf>, checked on 21 March 2018.
- ⁸⁶ Olam (No date) Olam's list of supplying mills (2016 & 2017). <http://49tmko49h46b4e0czy3rlqaye1b.wpengine.netdna-cdn.com/wp-content/uploads/2018/01/Third-Party-Supplier-Mill-List-12-Jan-2018.pdf>, checked on 21 March 2018. After drafting of the report, Olam published a new list of suppliers.
- ⁸⁷ PepsiCo (March 2018) PepsiCo Global Palm Oil Supplier List, 2018. http://www.pepsico.com/docs/album/policies-doc/pepsico-2018-direct-palm-oil-supplier-list_vf.pdf?sfvrsn=b1bad141_4
- ⁸⁸ PepsiCo (no date) PepsiCo Palm Oil Mill List 2017. http://www.pepsico.com/docs/album/policies-doc/pepsico-2017-palm-oil-mill-list.pdf?sfvrsn=ca59d041_6
- ⁸⁹ Procter & Gamble (No date) P&G's Direct Palm Suppliers -2017. <https://us.pg.com/sustainability/environmental-sustainability/policies-practices/palm-oil/pandg-direct-palm-suppliers-2017>, checked on 20 March 2018.
- ⁹⁰ Procter & Gamble (No date) 2017 Palm Oil Mills. <https://us.pg.com/-/media/PGCOMUS/Documents/PDF/PG%202017%20Palm%20Oil%20Mills.pdf?la=en-US&v=1-201802280708&hash=A585AD28988F160AB4AE854EFA7F75195F73C3E>, checked on 20 March 2018.
- ⁹¹ RB (No date) RB's next steps on responsible palm oil -2018 and beyond. https://www.rb.com/media/3322/rb-s-plans-for-responsible-palm-oil-sourcing-2018_final_all-suppliers.pdf
- ⁹² RB (no date) RB 2017 Palm Oil Mills. www.rb.com/media/3314/rb-palm-oil-mill-list_2017.pdf, checked on 20 March 2018.
- ⁹³ Unilever (No date) 2017 Palm Oil Suppliers. https://www.unilever.com/Images/unilever-palm-oil-supplier-list_tcm244-515896_en.pdf
- ⁹⁴ Unilever (No date) Sustainable palm oil - our progress (<https://www.unilever.com/sustainable-living/reducing-environmental-impact/sustainable-sourcing/transforming-the-palm-oil-industry/palm-oil-progress/>) and Unilever (No date) 2017 Palm Oil Mills (https://www.unilever.com/Images/unilever-palm-oil-mill-list_tcm244-515895_en.pdf), checked on 10 March 2018.
- ⁹⁵ WWF Global, Promoting certified sustainable palm oil. http://wwf.panda.org/what_we_do/footprint/agriculture/palm_oil/solutions/responsible_purchasing/
- ⁹⁶ RSPO website, How RSPO Certification Works. <http://www.rspo.org/certification/how-rspo-certification-works>, accessed on 10 June 2015.
- ⁹⁷ Eyes on the Forest (2016)
- ⁹⁸ Certification of Registration for PT. Inti Indosawit Subur Ukui I Palm Oil Mill. https://www.rspo.org/uploads/default/pnc/Ukui_I_POM_certificate_RSPO_PC_PT_Inti_Indosawit_Subur.pdf
- ⁹⁹ Certification of Registration for PT. Inti Indosawit Subur Ukui II Palm Oil Mill. https://www.rspo.org/uploads/default/pnc/Ukui_II_POM_certificate_RSPO_PC_PT_Inti_Indosawit_Subur-.pdf
- ¹⁰⁰ Certification of Registration for PT. Rigunas Agri Utama Peranap Mill. https://www.rspo.org/uploads/default/pnc/PT_Rigunas_Agri_Peranap_POM_certificate.pdf
- ¹⁰¹ Certification of Registration for PT. Rigunas Agri Utama Bungo Tebo Mill. https://www.rspo.org/uploads/default/pnc/PT_Rigunas_Agri_Utama_Bungo_Tebo_POM_Certificate.pdf
- ¹⁰² Neste (No date) Traceability, at <http://nestepalmoildashboard.com/>. Checked on 21 March 2018.
- ¹⁰³ Neste (no date) Neste Supply Chain Map, at <http://nestepalmoildashboard.com/>, checked on 21 March 2018.

104

http://www.rspo.org/uploads/default/scc/PT_WILMAR_NABATI_INDONESIA_Certificate_C833301CU_RSP_O_SCC_01_2016.pdf

105

http://www.rspo.org/uploads/default/scc/PT_Wilmar_Bioenergi_Indonesia_Certificate_C833302CU_RSPO_SCC_01_2015.pdf

106

[http://www.rspo.org/uploads/default/scc/PT._Wilmar_Nabati_Indonesia_\(Dumai\)_Certificate_C847234CU_RSPO_SCC_01_2016_.pdf](http://www.rspo.org/uploads/default/scc/PT._Wilmar_Nabati_Indonesia_(Dumai)_Certificate_C847234CU_RSPO_SCC_01_2016_.pdf)

107

https://rspo.org/uploads/default/scc/PT_Wilmar_Nabati_Indonesia_RSPO_SCCS_Certificate_PT_WNI_2017.pdf

108 http://www.rspo.org/uploads/default/scc/PT._SARI_DUMAI_SEJATI_CERT_RSPO_2017_.pdf

109 The previous certificate (CU-RSPO SCCS-821959) based on RSPO Supply Chain Certification Systems, version November 2011 expired on 29/08/2017
http://www.rspo.org/.../PT_Cemerlang_Energi_certificate_2_C821959CU_RSPO_SCCS_02_2014-34.pdf

110 https://www.rspo.org/uploads/default/scc/PT_ASIANAGRO_AGUNGJAYA_Certificate_RSPO_2017.pdf

111 http://www.rspo.org/uploads/default/scc/Dumai_Bulking_Station_Certificate_RSPO_2017.pdf

112 http://www.rspo.org/uploads/default/scc/Lubuk_Gaung_Refinery_Certificate_RSPO_2016.pdf

113 https://rspo.org/uploads/default/scc/PT_SMART_Tbk_Belawan_Certificate.pdf

114 https://www.rspo.org/uploads/default/scc/LUBUK_GAUNG_CERT_RSPO_2017.pdf

115

https://www.rspo.org/uploads/default/scc/Pacific_Indopalm_Industries_Certificate_SQUAL40055_20160222_Upgrade.pdf

116 Golden Agri-Resources Supply Chain Map, GAR Downstream Facilities
<https://goldenagri.com.sg/sustainability-dashboard/supply-chain-map>, checked on 2 June 2018.

117 Golden Agri-Resources (2018) Annual Report 2017. <https://goldenagri.com.sg/wp-content/uploads/2018/03/GAR-AR2017.pdf>

118 Golden Agri-Resources (2018) Annual Report 2017. <https://goldenagri.com.sg/wp-content/uploads/2018/03/GAR-AR2017.pdf> Page 54: "In 2017, we reached a significant milestone when we achieved 100 percent Traceability to the Plantation ("TTP") for all GAR mills. This means 39 percent of our palm supply chain is now fully traceable".

119 Wilmar (no date) Country Statistics January – December 2017. <http://www.wilmar-international.com/sustainability/progress/traceability/country-statistics/>, checked on 4 June 2018.

120 Chain Reaction Research (1 November 2017)

121 Wilmar (no date) Country Statistics January – December 2017.

122 Musim Mas (no date) Operational Presence. http://www.musimmas.com/about-us/operational-presence#_ptoh_3012739, checked on 4 June 2018.

123 Chain Reaction Research (1 November 2017)

124 Musim Mas (2018) Sustainability Policy Progress Report January – December 2017.
<http://www.musimmas.com/qws/slot/u50045/style/Sustainability/3.%20Progress%20on%20Policy/Progress%20Report/5th%20Progress%20Report%20-%20Jan%20to%20Nov%202017/2017%20Progress%20report%20-%20Jan%20to%20Dec%202017.pdf>

125 Apical (no date) Operations. <http://www.apicalgroup.com/operations>, checked on 4 June 2018.

126 <http://www.eyesontheforest.or.id/uploads/default/report/Eyes-on-the-Forest-Investigative-Report-No-One-is-Safe-April-20161.pdf>

127 CPO mills in Central Sumatra, published at the Eyes on the Forest interactive map
<http://maps.eyesontheforest.or.id>

¹²⁸ Unilever (No date) Eliminating deforestation in our supply chain. <https://www.unilever.com/sustainable-living/reducing-environmental-impact/greenhouse-gases/eliminating-deforestation-in-our-supply-chain/>
Unilever made its NDPE commitment in 2010.

¹²⁹ CAO (December 2013) Dispute Resolution Conclusion Report – Wilmar 3. <http://www.cao-ombudsman.org/cases/document-links/documents/Wilmar3ConclusionReportDec2013.pdf>