



Mission Failed

**: The limitations of palm oil certifications
in preventing deforestation**

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APIL is a nonprofit public interest law organization that defends the rights of vulnerable migrants and refugees in the Korean society and monitors human rights violations by Korean companies in overseas. Our goal is a world of justice and peace where the innate dignity and human rights of all people are guaranteed. To this end, we advocate for the rights of refugees, detained migrants, stateless persons, and victims of human trafficking and monitor multinational corporations for human rights violations through litigation and petitioning, research and legislative campaigns, education and public relations, solidarity with national and international organizations, and the use of international human rights mechanisms.



SFOC is a nonprofit organization established in 2016 for more effective climate action and energy transition. SFOC is led by legal, economic, financial, and environmental experts with experience in energy and climate policy and works closely with domestic and international partners.

Executive Summary



■ Korindo's development of palm oil plantation in Papua, Indonesia ©Mighty Earth

The world has long set foot in the unforeseen era of the climate and ecological crises. Our use of fossil fuels is filling up the atmosphere with greenhouse gases, and habitat destructions are triggering the collapse of biodiversity. These changes are particularly devastating for the Indigenous Peoples around the world, who bear the irreplaceable role of defending and nurturing our last remaining hope—forests.

This report sheds light on the environmental and social impacts of the palm oil industry, which had been the culprit in destroying the rainforests of Southeast Asia for decades. Palm oil is a type of vegetable oil commonly used throughout the world with its usage rapidly on the rise. In most cases, palm oil is produced in the industrial plantations of multinational corporations, which are robbing the Indigenous Peoples and Local Communities (IPLCs) of their homes.

Despite its obvious human rights and environmental risks, palm oil is praised as an alternative energy source to respond to climate change under the misleading name of 'renewable fuel.' Recently, the industry has taken its attempts to greenwash palm oil even further; at the center of such schemes are voluntary certifications, such as the Roundtable on Sustainable Palm Oil (RSPO).

Palm oil plantations drive out rainforests and their guardians

Global palm oil production has increased 50 times over the past 40 years. Between 2001 and 2015 alone, 10 million ha of forests, equivalent to the size of S. Korea, was destroyed to make space for palm oil plantations. 67% of such deforestation took place in Indonesia and 26% in Malaysia.

As industrial-scale palm oil production has entailed clear-cutting of natural forests, numerous human rights and environmental issues have occurred in the process. A palm oil plantation converted from a rainforest emits 174 metric tons of carbon per ha (tC/ha). Destroying peatlands leads to even more serious consequences as they can store up 18 to 28 times more carbon than regular forests. 405 species around the world are affected by palm oil production, at least 193 of which are threatened to extinction.

The palm oil industry's land clearing typically takes place without the consent of the local communities. Land and environmental defenders who stand up to protect their territories meet severe oppression from the industry-government collusion. Chemicals and wastewater from plantations pollute the soils and rivers, encroaching on the local people's right to food and water. What's more, labor conditions in palm oil plantations often fail to guarantee even the most basic of human rights, marked by high risk, long working hours, and low wages.

South Korea's palm oil supply chain prioritizes growth over sustainability

S. Korea, Asia's fourth largest economy, has directly and indirectly contributed to the human rights and environmental issues rampant in palm oil production. While S. Korea had typically used palm oil to manufacture foods and lifestyle products in the past, the Ministry of Trade, Industry and Energy's (MOTIE) introduction of support measures for renewable energy in 2012 incurred a rapid uptick in the imports of oil palm for biofuels. Currently, palm oil and palm by-products consist 44% of the country's transport biodiesel and bio-heavy oil for power generation.

In 2021, the Ministry of Environment (ME) categorized the manufacturing and production of biofuels—including palm oil—as 'green economic activities' under the K-Taxonomy program. In the name of supporting overseas agricultural and forest resources development, the Ministry of Agriculture, Food and Rural Affairs (MAFRA) and the Korea Forest Service (KFS) have provided more than 80 billion KRW (60 million USD) in loans to Korean palm oil businesses operating in Indonesia. Upon criticism that they are engaged in deforestation and human rights violations, the KFS made palm oil plantations ineligible for future loans and suggested RSPO certification as an alternative.

In the meantime, the S. Korean government's policies to support the development and use of palm oil without any human rights and environmental standards provide no incentive for the domestic industry to strengthen the sustainability of its palm oil supply chains. Taking the food industry for example, even the RSPO members fail to source RSPO-certified palm oil at all, or their usage hardly meets a third of their total consumption. The lifestyle product industry is stuck at using RSPO palm oil certified with the mass balance (MB) and the book and claim (BC) models that do not guarantee sustainability. The biofuel industry, while sourcing palm oil from suppliers at high risk of deforestation and violating human rights, fail to take any remedial measures. Out of the five S. Korean corporations operating palm oil plantations in Indonesia, POSCO International and Samsung C&T have adopted the No Deforestation, No Peat, No Exploitation (NDPE) policy, but still face conflicts with the local communities. In a nutshell, there is not a single drop of palm oil used in S. Korea that is sustainable.

RSPO, an easy 'get out of jail free' ticket

As human rights and environment issues in palm oil production have increasingly gained media spotlight, the palm oil industry introduced RSPO, a voluntary certification scheme. RSPO issues producer certification to palm oil growers per the Principles and Criteria (P&C) and supply chain certification to midstream and downstream companies using palm oil based on the Supply Chain Certification Standard (SCCS).

But the RSPO standards are not to be equated with being 'deforestation-free.' When handing out certifications, RSPO does not account for the clearing of primary forests and High Conservation Value (HCV) areas that took place before the 2005 cut-off date. Destroying High Carbon Stock (HCS) forests, peatlands, and other conservation areas that altogether encompass wider ranges of forests does not prevent companies from receiving RSPO certification either as long as such clearing happened before 2018.

That is, even if a candidate company destroyed the aforementioned conservation areas after the cut-off dates, it is still eligible to receive certification through the Remediation and Compensation Procedure (RaCP)—which is practically a free certification pass that justifies any prior involvement in deforestation. Among Korean businesses, POSCO International obtained RSPO under the RaCP condition, all after destroying 26,500 ha of rainforests in Papua.

Meanwhile, the popular MB and the BC models adopted by RSPO supply chain members also fail to ensure sustainability. The MB model allows for any business to mix its certified palm oil with uncertified ones in any leg of the supply chain, rather than keeping the certified volume separated. The BC model essentially lets a company 'buy' the RSPO label even when it does not use certified palm oil at all, under the pretense that the financial contribution is made to the production of sustainable palm oil elsewhere.

RSPO's poor implementation fails to meet its own criteria

To become certified with either the P&C or SCCS, the candidate company is directed to hire one of the RSPO-designated certification bodies to go through the auditing and review processes. However, since the auditee 'pays' the auditor for its service, the certification body is rendered financially dependent on the company. The conflict of interests inherent in this system likely makes the certification body hesitant to proactively identify violations or to put a high bar on obtaining certification.

Even when the RSPO Secretariat identifies or acknowledges violations, it seldom chooses to impose corrective or punitive measures. In rare cases the membership is indeed suspended, records show the RSPO Secretariat swiftly restores the certification in favor of the industry. In Indonesia alone, RSPO-certified plantations equivalent to 330,000 football pitches are located in forest estate in violation of the local forestry laws—RSPO has yet to take any decisive measure on this matter.

Given this institutional limitation and insufficient implementation status, RSPO's blanket argument of 'sustainable' palm oil is deceiving. Evidence suggests that RSPO is failing to resolve the chronic issues of palm oil; attempts to cover up its shortcomings are misleading for the consumers.

Regulatory efforts to clean up the palm oil supply chain

As illustrated, there exists a clear limit to rely on the private sector's voluntary commitment to prevent deforestation and protect human rights. In light of the needs for a regulatory approach, the EU and its member states have either enacted or are in the process of introducing legislation that make it mandatory for corporations to conduct due diligence on their supply chains. A case in point is the EU's Corporate Sustainability Due Diligence Directive (CSDD). The CSDD obliges companies placing products on the EU market to establish and implement human rights and environmental due diligence policies to inspect their supply chains. Companies subject to the CSDD are to prevent, mitigate, and improve any potential and actual adverse impacts on human rights and the environment.

The EU requires more stringent levels of environmental due diligence for commodities that are linked to deforestation and forest degradation. The Regulation on Deforestation-free Products (EUDR), which passed the European Parliament in December 2022, designates beef, soy, coffee, cocoa, timber, rubber, and their derivatives as deforestation-risk products. Companies wishing to import, export, or sell such items in the EU are obliged to demonstrate that their products are not produced from where deforestation has taken place.

Regarding biofuels, the EU has also been responding to severe environmental harms by applying sustainability criteria within the Renewable Energy Directive (RED). Despite the known shortcomings, the EU's recognition of only the biofuels free from the destruction of the forests of high carbon and rich biodiversity signals an important direction for energy transition. In addition, the EU's designation of palm oil and soy as high indirect land-use change (ILUC) risk feedstocks and the subsequent decision to phase them out from transport biofuels by 2030 have set an example for other countries to follow.



South Korea should take a first step to break free from deforestation

S. Korea currently does not have any legislation on supply chain due diligence, regulations on forest-risk commodities, or sustainability criteria for biofuels. Instead, the government is attempting to further expand the use of biofuels by increasing the mandatory blending ratio for biodiesel and deploying sustainable aviation fuels (SAF). Promoting SAF with no sustainability standards not only goes against the trend of restricting palm oil-based transport fuels seen in advance economies, but also greatly accelerates the domestic biofuel industry's reliance on high-risk feedstocks. The government must recognize the social and environmental impacts of palm oil and implement forestry and energy policies interlinked with mandatory corporate supply chain due diligence.

When it comes to the private sector, its environment, social, and governance (ESG) management keeps failing to address human rights and environmental harms as companies have yet to incorporate due diligence procedures in their operations. In fact, corporations tend to outsource due diligence management and rely on ill-advised ESG policies with improper indicators. Corporate actors must take responsibility for the active implementation of supply chain due diligence. Those that handle palm oil should execute a comprehensive NDPE policy and uphold its standards to the trading partners to ensure their palm oil supply chain is free from human rights violations and deforestation.

Corporations must also respect the rights of the IPLCs throughout their operations. Relevant information must be disclosed to the people affected by palm oil production, an action considered a precursor to respecting the Free, Prior and Informed Consent (FPIC) in every stage of the business. Companies should also announce uncompromising principles to respect land and human rights defenders and proactively take measures to protect their rights.

Policy recommendations

A. Introduction of supply chain due diligence legislation

The government shall enact legislation obliging corporations to conduct human rights and environmental due diligence throughout their supply chains. The obligation should be expanded to financial and investment institutions not to be directly or indirectly linked to human rights violations and environmental harms. Administrative agencies should be able to take corrective measures against the non-complying entities, and the victims should be able to have access to remedy.

B. Introduction of regulation on forest-risk commodities

The government shall designate high-risk products that contribute to deforestation and forest degradation. Administrative agencies shall end the imports and sales of products from and financial support for businesses failing to demonstrate their supply chain's non-involvement in deforestation. Non-compliant operators shall be subject to corrective actions. It is to be noted that supply chain due diligence as the means of verification cannot be replaced with legality criteria or voluntary certification.

C. Introduction of sustainability criteria for biofuels

The government shall introduce sustainability criteria as a mandatory condition for biofuels to be eligible for the government's renewables support and inclusion in the K-Taxonomy. Sustainability criteria should include but not limited to greenhouse gas emissions savings, loss of biodiversity, and environmental degradation. Feedstocks sourced from deforested areas or associated with human rights violations must be prohibited. Compliance with the criteria is to be verified through supply chain due diligence, not voluntary certification.

D. Suspension of public finance for forest-risk commodities

Government organizations and public financial institutions shall establish human rights and environmental guidelines that set the standards for financial services and investment. In case a candidate is associated with forest-risk commodity supply chain, the business entity shall conduct in advance due diligence per the aforementioned legislation. Only upon confirmation that there are no outstanding issues the support measures should be authorized.

E. Implementation of corporate human rights and environmental due diligence

Corporations shall identify potential and actual adverse impacts occurring throughout their operations and take measures to prevent and mitigate them. Palm oil producers shall protect the ecosystems and respect the rights of the IPLCs. Businesses using palm oil in their supply chains shall use only the palm oil without any social or environmental risk in accordance to their comprehensive and rigorous NDPE policy.

1. Sustainability of South Korea's palm oil supply chain

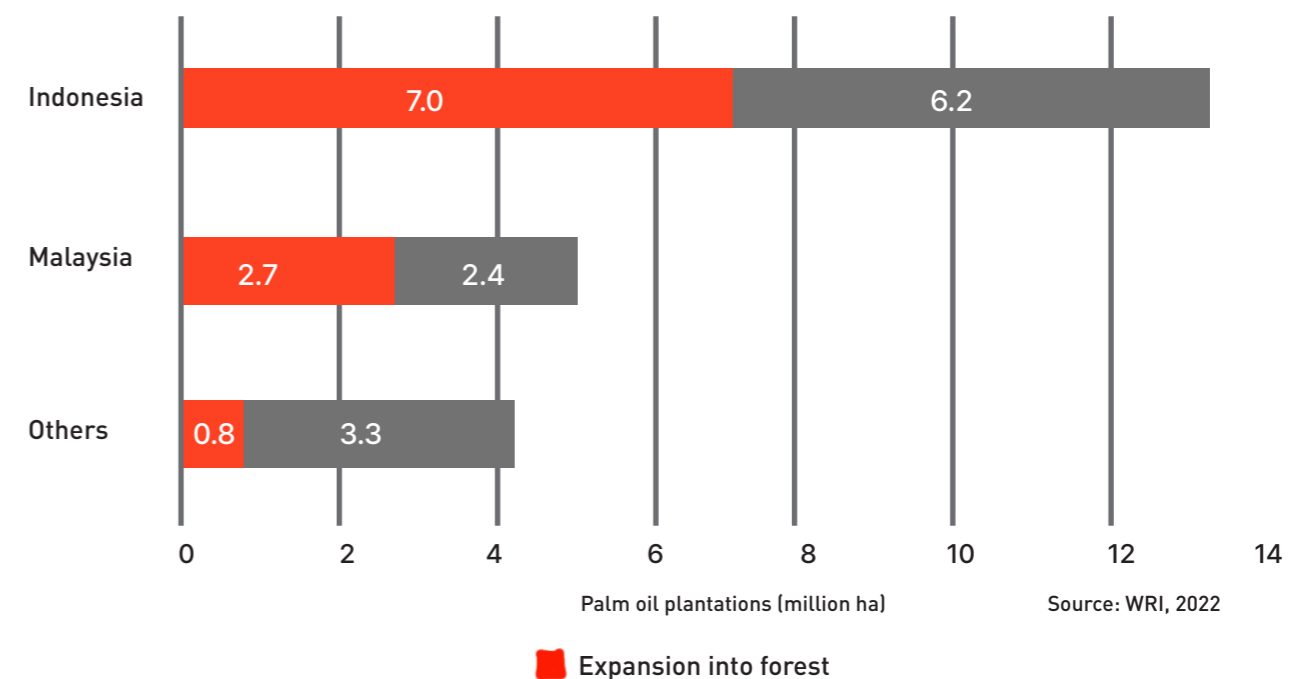
1.1. Introduction: Global palm oil supply chain

1.1.1. Skyrocketing palm oil production

Palm oil is the most widely available vegetable oil today with its consumption on an increasing trend. The world palm oil production was roughly 2 million metric tons in 1970 but increased 40 times to reach 76 million tons in 2020. Indonesia produces 59% of the world's palm oil and Malaysia 25%.¹ However, palm oil is well-known to cause massive deforestation and violate the rights of the Indigenous Peoples and Local Communities (IPLC) in its production process.

The World Resources Institute (WRI) states that about 10 million ha of palm oil plantations, which is half of all palm oil plantations developed between 2001 and 2015 and about size of S. Korea, were built on deforested land.² Simply put, 222 m² of rainforests disappeared every second to become palm oil plantations. 67% of such deforestation took place in Indonesia and 26% in Malaysia. Approximately half of the new plantations in the two countries were once forested areas.

From 2001 to 2015, forests equivalent to the size of S. Korea have disappeared due to palm oil plantations



1. FAO, "FAOSTAT", <https://www.fao.org/faostat/en/#data/QCL> (access date: 2023.1.23)

2. WRI (2022), "Indicators of forest extent", Global Forest Review, <https://research.wri.org/gfr/forest-extent-indicators/deforestation-agriculture> (access date: 2023.2.27)

Crisis in Papua, the last remaining paradise of biodiversity

Papua, also known as New Guinea, is the second largest island in the world with the largest rainforest in the Asia-Pacific region. Papua is home to 15,000 to 20,000 species of flora, 602 species of birds, and 125 species of mammals, half of which are endemic.³ Some studies have shown that Papua is the most biologically diverse place in the world.⁴ Scientists have discovered an average of two new species each week between 1998 and 2008 and found more than 1,000 new species in total.⁵ In this heart of biodiversity, Korindo Group (Korean-Indonesian enterprise) and POSCO International (Korean company) have destroyed massive forest areas to develop palm oil plantations. Korindo has cleared more than 50,000 ha of forests in Papua and nearby Maluku,⁶ and POSCO nearly 26,500 ha in Papua, devastating the ecosystems.⁷ Such an unprecedented deforestation in Papua is pushing countless species on the verge of extinction even before or only shortly after they are discovered.⁸



■ Korindo's development of palm oil plantation in Papua, Indonesia ©Mighty Earth

3. Kartikasari, S. N. et al. (2012), 'Ekologi Papua', <https://sites.lsa.umich.edu/wp-content/uploads/sites/162/2014/09/Kartikasari-Marshall-Beehler-2012-Ekologi-Papua.pdf>

4. Cámara-Leret, R. et al. (2020), "New Guinea has the world's richest island flora", Nature, 584, <https://www.nature.com/articles/s41586-020-2549-5>

5. Thompson, C. (2011), 'Final Frontier: Newly Discovered Species of New Guinea', WWF Western Melanesia Programme Office, <https://wwf.panda.org/wwf-news/?200766/More-than-1000-new-species-found-in-New-Guinea>

6. Aidenvironment (2016), 'Burning Paradise', <https://www.mightyearth.org/wp-content/uploads/2018/02/2016-08-25-FINAL-Korindo-report-English-3.pdf>

7. GPF (2015), 'Recommendation to exclude Daewoo International Corporation and POSCO from the Government Pension Fund Global', pp. 3-5. <https://etikkradet.no/recommendation-daewoo-270315/>

8. Diela, T. (2019.8.8), "Indonesia president makes moratorium on forest clearance permanent", 'Reuters', <https://www.reuters.com/article/us-indonesia-environment-forest-idUSKCN1UY14P> (access date: 2023.3.1)



The expansion of biofuels has led to an increase in global palm oil demand, but palm oil-based feedstocks in Europe have been on a decrease since the 2020s.

The recent surge in palm oil demand is mainly led by biofuels. Under the recognition that they are a renewable alternative to replace fossil fuels in response to climate change, biofuels are eligible for policy and financial support in many countries. Among various types of biofuels, transport biofuels, which blend palm oil and palm by-products with diesel for automobiles, and bio-heavy oil which is burned in power plants to produce electricity in S. Korea, are the major culprits in environmental and social harms.

The European Union was particularly active in deploying biodiesel using imported palm oil. In 2009, the EU decided that biofuels should account for 10% of its regional transport fuels by 2020.⁹ By 2018, 65% of palm oil in the bloc went into biofuels.¹⁰ However, upon the decision to phase out palm oil-based transport biofuels by 2030, this once-high proportion has been decreasing since 2020.¹¹

In Indonesia, the world's biggest palm oil producer country, biofuels take up 56% of the nationwide palm oil consumption.¹² In 2018, Indonesia made it mandatory for all vehicles and machinery to use biodiesels mixed with palm oil, and its minimum ratio will increase to 40% from 2023.¹³ Indonesia's Ministry of Energy and Mineral Resources stated that an additional 9 million to 15 million ha of land, similar to the size of S. Korea, will be needed for new palm oil plantations to meet this objective.¹⁴



■ Samsung C&T's palm oil plantation in Riau, Indonesia ©APIL

9. EU (2009), "Directive 2009/28/EC of the European Parliament and of the Council of 23 April 2009", <https://eur-lex.europa.eu/legal-content/EN/TXT/HTML/?uri=CELEX:32009L0028&from=EN> [access date: 2023.2.27]

10. T&E (2019), "The Trend Worsens: More Palm Oil for Energy, Less for Food", pp. 1-2. <https://www.transportenvironment.org/discover/trend-worsens-more-palm-oil-energy-less-food/>

11. USDA (2022), "European Union: Biofuels Annual", pp. 23-24. <https://www.fas.usda.gov/data/european-union-biofuels-annual-2>

12. Phillips, J. et al., "From palm to plate. Tracing sustainable palm oil along the supply chain", China Dialogue, <https://chinadialogue.net/en/food/from-palm-to-plate-tracing-sustainable-palm-oil-along-the-supply-chain/> [access date: 2023.1.23]

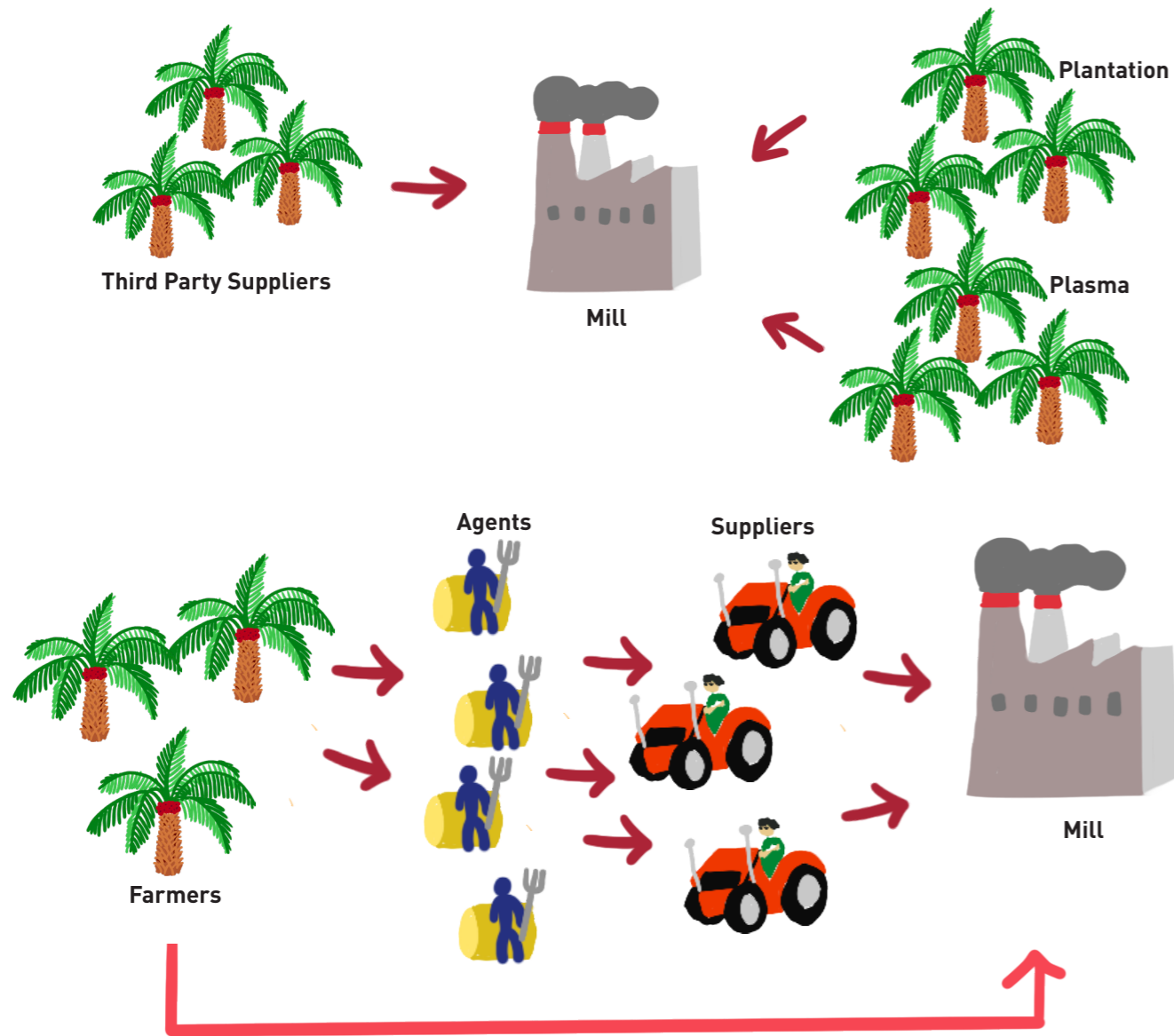
13. 박의래 (2022.11.2), "인니, 이르면 내년 1월부터 팜유 비중 40% 바이오피젤 상용화", 연합뉴스, <https://www.yna.co.kr/view/AKR20221102138800104> [access date: 2023.2.27]

14. CRR (2021.1.12), "The Chain: Indonesia's New Targets for National Biodiesel Program Could Sharply Increase Pressure on the Country's Remaining Forests", <https://chainreactionresearch.com/the-chain-indonesias-new-targets-for-national-biodiesel-program-could-sharply-increase-pressure-on-the-countrys-remaining-forests/> [access date: 2023.2.27]

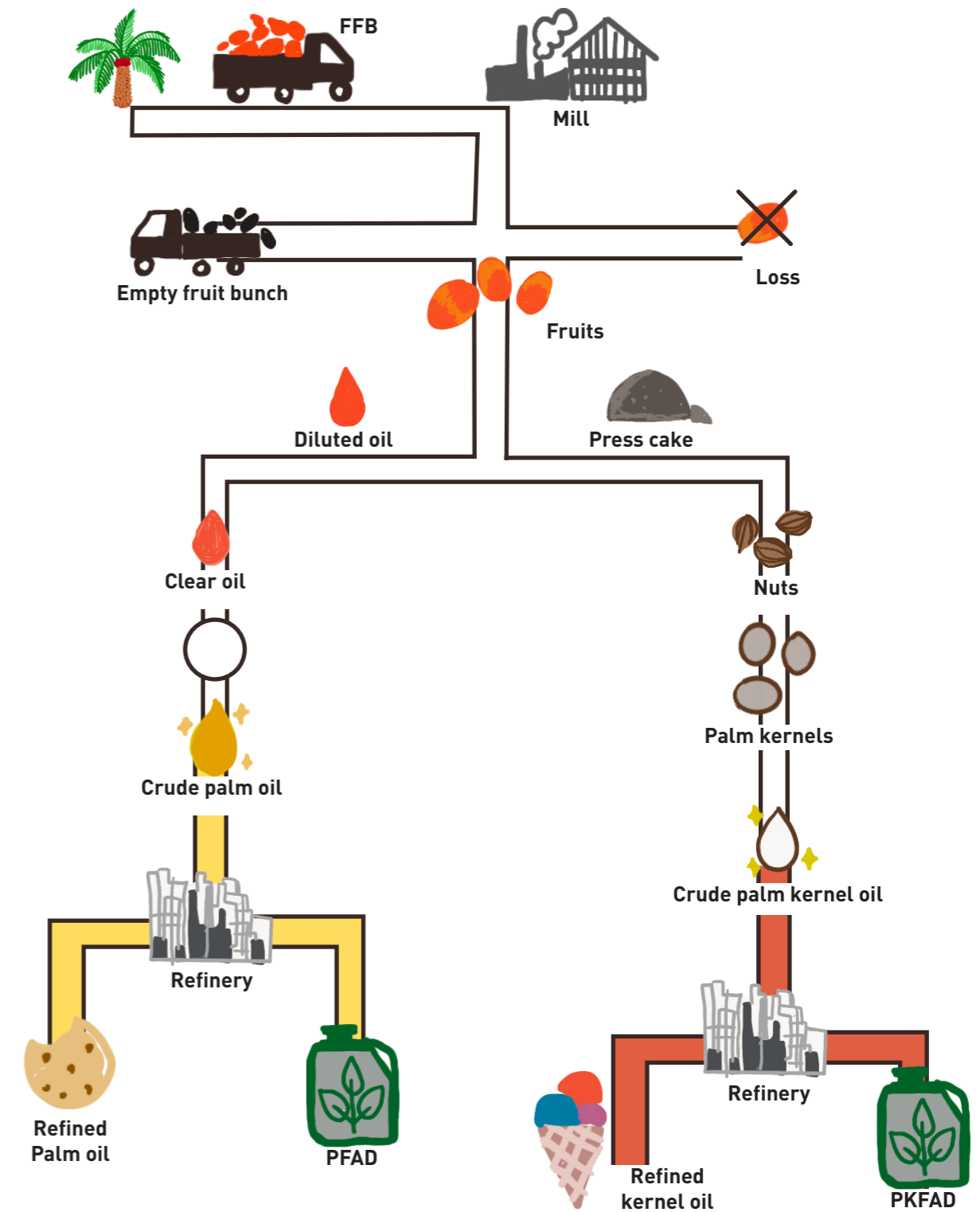
1.1.2. Complicated nature of palm oil supply chain

Palm oil supply chains are extremely long and complicated, which makes it difficult to identify human rights and environmental issues in production. Mills in Indonesia source the fresh fruit bunches (FFBs) of oil palm from various routes—getting them from large-scale plantations directly run by enterprises that own the mills, from plasma farms, or from any other third party are all possible options. Third-party sourcing options include direct provision (where FFB providers also own palm oil farms), buying from nearby smallholders, or re-purchasing through a middleman who buys FFBs from smallholders. In the last scenario, the agent re-sells FFBs after sorting them into quality levels, which makes it difficult to pinpoint the exact point of origin. Despite the middlemen’s pivotal role in the supply chain, the current Indonesian law does not provide a legal basis to manage their activities. With no applicable regulation in place, it is impossible to track the official scales of their operation.¹⁵

Mills purchase FFBs from various routes



Palm fruits and their many uses



15. Kim, S. et al. (2022), 'Importing Deforestation', pp. 53–54. APIL, SFOC, & KFEM <https://forourclimate.org/sub/data/view.htmlid:74>

Crude palm oil (CPO) produced from mills are processed and sold to manufacturers as base materials for foods, cosmetics, and biofuels. Other palm by-products including palm kernel oil (PKO) go through much more complicated supply chain stages. Palm oil and palm by-products have various and many initial providers and end consumers, but have limited number of processors and traders in between, which creates a typical 'hourglass-type' supply chain structure.

Such a long and complex nature of palm oil supply chain hinders with achieving sustainability even further. Some companies disclose the supply chain details reaching up to the mills to ensure the transparency and traceability. But even in this case, it is impossible to trace the supply chain all the way back to actual FFB production sites since the companies rarely keep track of FFB providers before the milling stage.



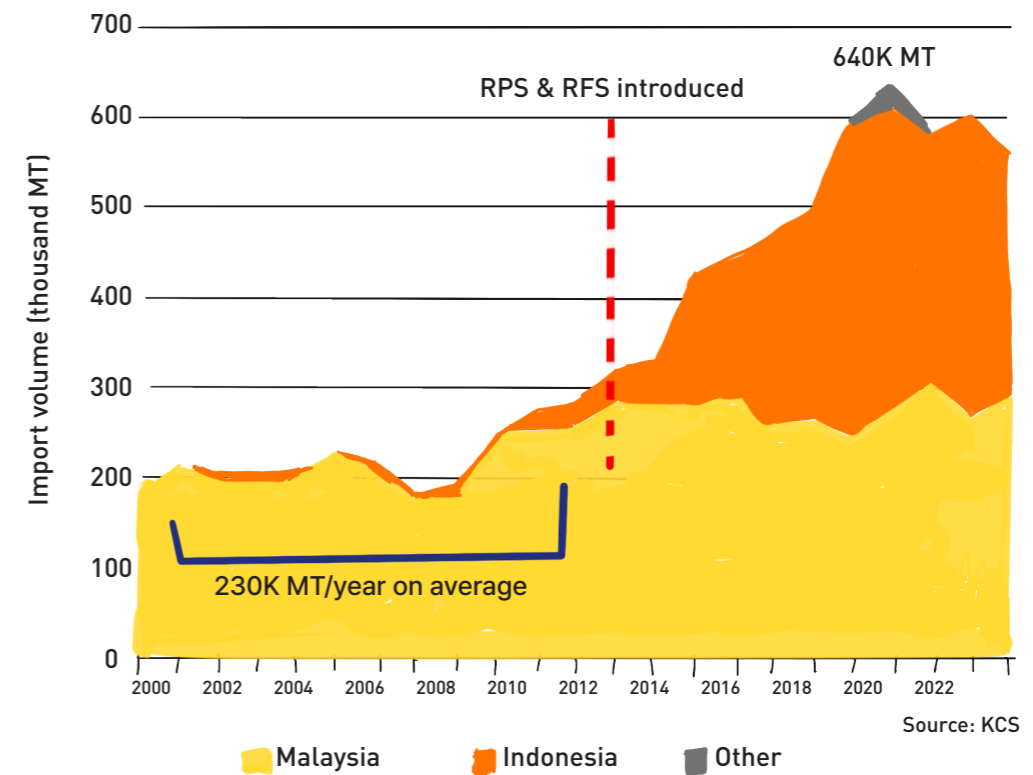
■ Villagers are harvesting sago palm trees, staple to Indigenous Papuans ©SFOC

1.2. South Korea's toxic addiction to palm oil

1.2.1. South Korea's growing palm oil imports

Until recently, S. Korea used Malaysian palm oil to manufacture foods—mainly instant noodles—and lifestyle products. Later, signaled by the government's policy to develop and secure overseas agricultural resources after the 2008 world food price crisis and the Renewable Portfolio Standard (RPS) and Renewable Fuel Standard (RFS) initiatives to expand the use of renewables in 2012, S. Korea has seen a surge of palm oil imports. The figures have increased 1.7 times over ten years, from 324,956 metric tons in 2012 to 566,138 tons in 2022. Much of the increase is attributable to the expansion of biofuels that use palm oil as feedstocks. Especially, imports from Indonesia increased ten times to reach 341,802 metric tons in 2021, beating Malaysia to top the list.^{16,17}

S. Korea's palm oil imports have rapidly increased with support for biofuels¹⁸

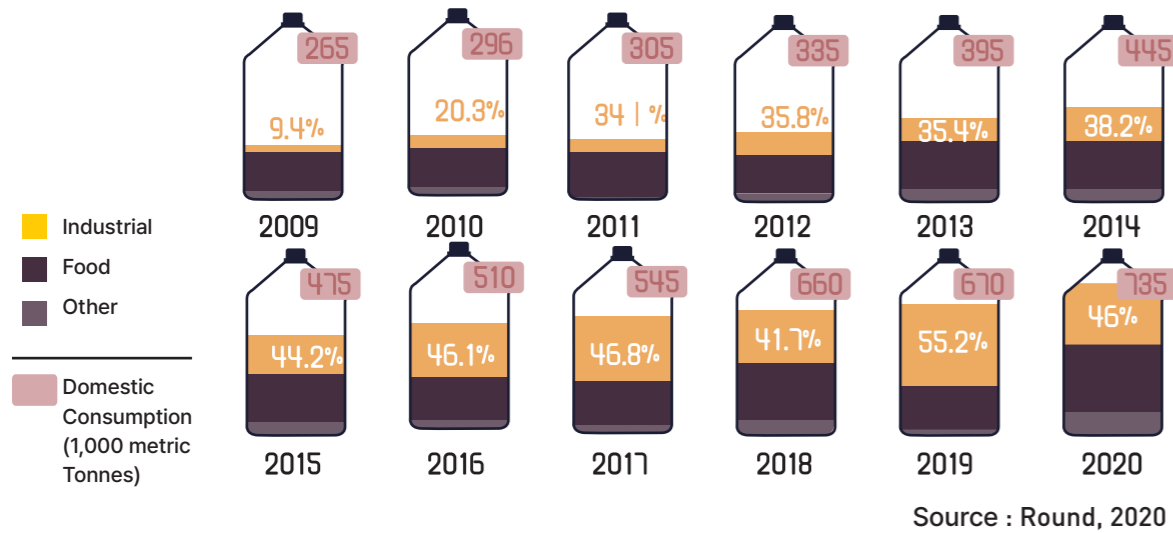


16. Palm oil imports from Indonesia fell from 341,802 metric tons in 2021 to 274,421 tons in 2022, but this seems to be due to the Indonesian government's palm oil export restrictions that began in early 2022. Since 2022, Indonesia has practiced protectionist trade policies in response to increased local demand for biofuels, inflation, food security, etc.

17. Based on HS Code 1511. KCS. Trade Statistics for Export/Import. <https://unipass.customs.go.kr/ets/> (access date: 2023.1.21)

18. KCS. Trade Statistics for Export/Import. <https://unipass.customs.go.kr/ets/> (access date: 2023.1.21)

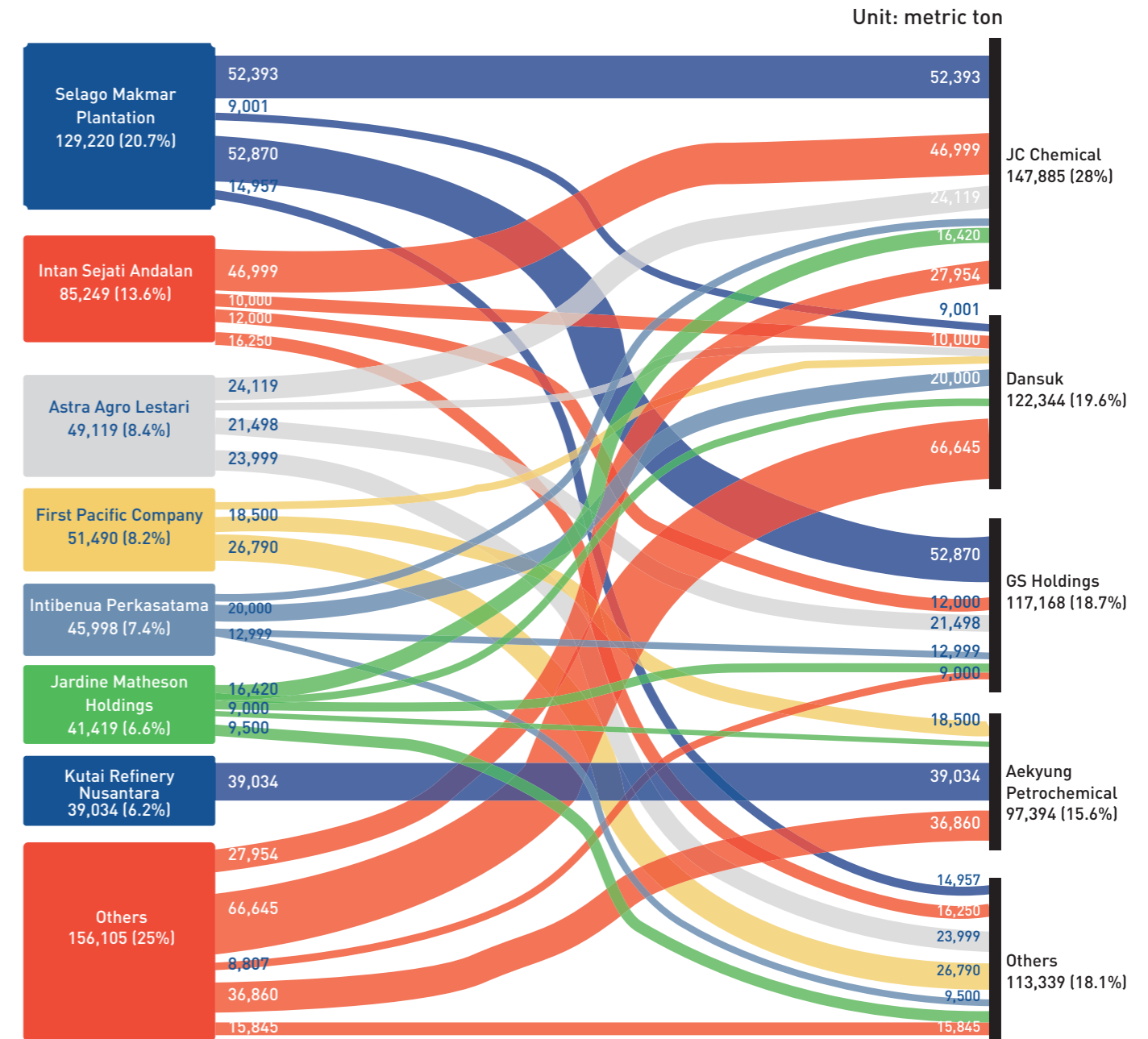
S. Korea's recent increase in palm oil imports is due to the expansion of biofuels¹⁹



In 2022, Advocates for Public Interest Law (APIL), Solutions For Our Climate (SFOC) and Korea Federation for Environmental Movements' (KFEM) report *Importing Deforestation* analyzed the supply chain of Indonesian palm oil.²⁰ The trade volumes from January 2019 to September 2021 showed that four companies (JC Chemical, Dansuk, GS Holdings, Aekyung Petrochemical) imported 81% of the palm oil from Indonesia. During the same period, SK Chemical (currently SK EcoPrime) and Dansuk imported 60% of palm fatty acid distillate (PFAD), a type of palm by-products. The fact that all are biofuel companies show that most of the palm oil imported from Indonesia is used as biofuels in S. Korea.

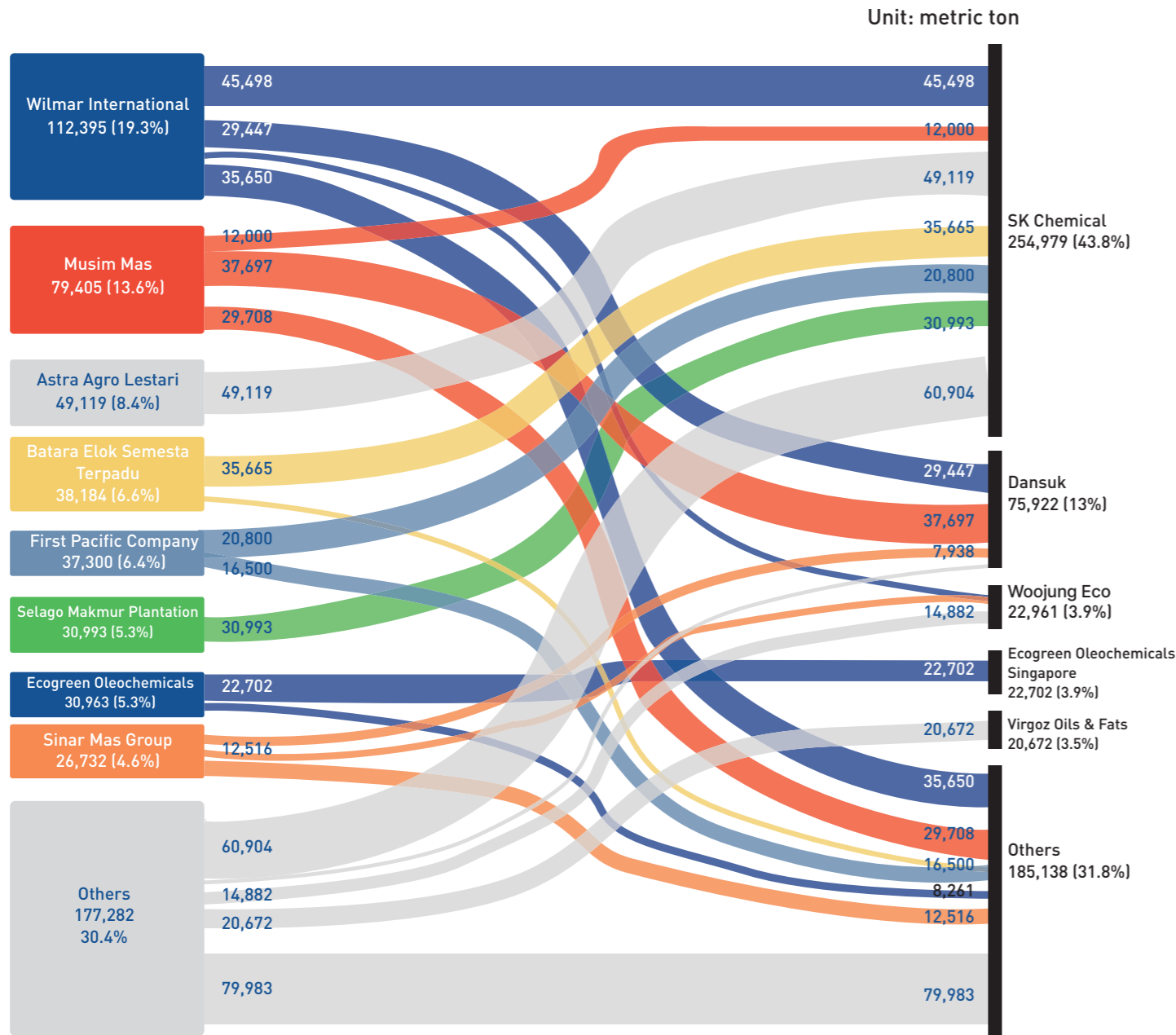
19. Round, J. (2020.12.23), "South Korea's use of palm oil has increased sharply since 2009", China Dialogue. <https://chinadialogue.net/en/food/south-koreas-finance-of-green-palm-oil-drives-destruction-in-indonesia/> [access date: 2023.3.4]
 20. The research analyzed the volume of imported palm oil under HS codes 1511.10 and 1511.90 at 71.8% (2019), 65.9% (2020), 67.4% (to Sep 2019) levels each year, based on the Korea Customs Service (KCS) data. PFAD is limited to imports under HS code 3823.19, showing a slight discrepancy from the customs cleared volume by the KCS. Therefore, neither item represents the KCS data's population in its entirety. Kim, S. et al. (2022), "Importing Deforestation", pp. 48-52. APIL, SFOC, & KFEM <https://forourclimate.org/sub/data/view.htmlid74>

JC Chemical, Dansuk, GS Holdings, and Aekyung Petrochemical import 81% of Indonesian palm oil²¹



21. Kim, S. et al. (2022), "Importing Deforestation", p. 50. APIL, SFOC, & KFEM <https://forourclimate.org/sub/data/view.htmlid74>

SK Chemical (currently SK EcoPrime) and Dansuk import 60% of Indonesian PFAD²²



22. Kim, S. et al. (2022), 'Importing Deforestation', p. 52. APIL, SFOC, & KFEM <https://forourclimate.org/sub/data/view.htmlidlx74>

1.2.2. Biofuel policies that support palm oil

Per the Act on the Promotion of the Development, Use and Diffusion of New and Renewable Energy (Renewable Energy Act), biofuels are recognized as renewable energy. The RPS deals with bio-heavy oil and RFS biodiesel. Aimed at accelerating the distribution of various renewable energy sources, the two standards provide policy-backed measures for these biofuels.



Backed by governmental support, palm oil-based biofuels are categorized as renewables and continue to grow.

Under the RPS, large-scale fossil fuel utilities are obliged to produce a certain proportion of their power generation in renewable energy. Power companies may submit the Renewable Energy Certificates (RECs) to demonstrate the provision of renewable energy to fulfill their obligations. RECs, which function as a subsidy for renewables, are issued with different weightings depending on the energy source and facility type. Currently, a weighting of 1.0 is applied to bio-heavy oil.²³ The RFS requires mixing a certain ratio of biodiesel with diesel for automobiles—currently 3.5%. Under the current Renewable Energy Act, the biodiesel blending ratio will increase to 5% by 2030²⁴, and the government plans to raise it further to 8%.²⁵

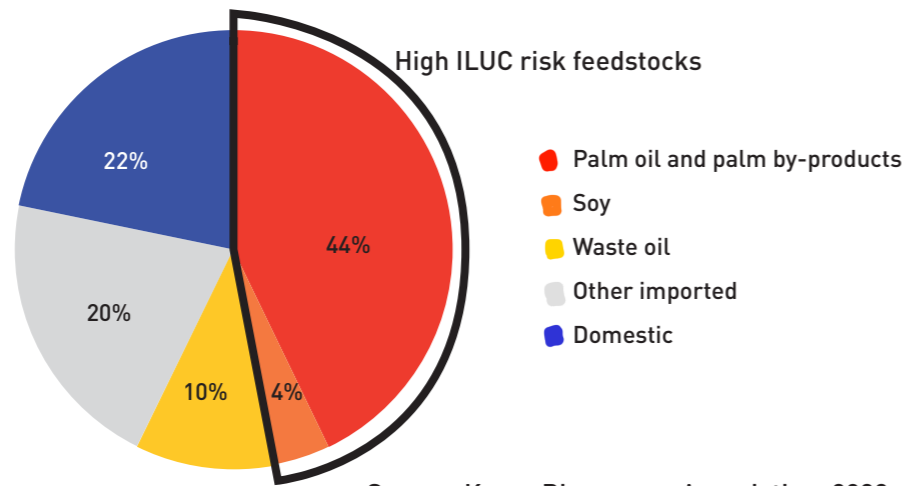
The core issue lies in the fact that half of the biofuels are palm oil-based, the proportion of which continues to rise. S. Korea used 274,200 metric tons of palm oil and palm by-products in 2014, which more than doubled to reach 582,100 tons in 2021.²⁶ Nonetheless, the Ministry of Trade, Industry and Energy (MOTIE) has no intention to introduce any safeguards against high-risk feedstocks like palm oil. As of now, meeting the technical quality standards are the only conditions for biofuels to be recognized as renewables in S. Korea.

Types and support measures of biofuels in S. Korea^{27, 28}

	Statistics as of 2021	
	Biodiesel	Bio-heavy oil
Purpose	Diesel for transport	Power generation in thermal power plants
Scale	597,078 toe 1,259,230 kl Nationwide	390,302 toe 1,832 GWh Jeju: 1,404 GWh Ulsan: 428 GWh
Support policy	RFS mandatory blending ratio 3.5% (2021) —8% (2030)	RPS REC weighting of 1.0
Palm oil and palm by-products	476,200 MT (55% of all feedstocks)	105,900 MT (23% of all feedstocks)
	582,100 MT (43.7% of all feedstocks)	

23. MOTIE Public Notice No. 2022-68. 「신·재생에너지 공급의무화제도 및 연료 혼합의무화제도 관리·운영지침」 [별표 2] 신·재생에너지원별 가중치.
 24. Presidential Decree No. 32315. 「Enforcement Decree Of The Act On The Promotion Of The Development, Use And Diffusion Of New And Renewable Energy」 [별표 6] 신·재생에너지 연료의 혼합량 산정 계산식(제26조의2 관련).
 25. MOTIE (2022.10.13), "친환경 바이오연료 활성화를 위해 민-관이 손잡다", http://www.motie.go.kr/motie/ne/presse/press2/bbs/bbsView.do?bbs_seq_n=166158&bbs_cd_n=81 (access date: 2023.3.1)
 26. Korea Bio-energy Association (2022), "2021년도 바이오디젤 및 바이오중유 보급 실적", 국회의원 김경만 의원실 제공.
 27. KEA (2022), "2021년도 신재생에너지 보급통계(2022년 공표)", <https://www.knrec.or.kr/biz/pds/statistic/view.do?no=190>
 28. Korea Bio-energy Association (2022), "2021년도 바이오디젤 및 바이오중유 보급 실적", 국회의원 김경만 의원실 제공.

Palm oil-based feedstocks account for 44% of all domestic biofuels²⁹



Source: Korea Bio-energy Association, 2022



■ Villagers from near POSCO International's palm oil plantation ©SFOC

29. Korea Bio-energy Association (2022), "2021년도 바이오디젤 및 바이오중유 보급 실적", 국회의원 김경만 의원실 제공.

1.2.3. Support for producers that lack human rights and environmental standards

On top of the MOTIE's pursuit to expand biofuels, the Ministry of Environment (ME) also categorized the production of biofuels—including palm oil—under the 'green sector' as greenhouse gas (GHG) emissions reduction activities in the K-taxonomy guideline in 2021. As an incentive-oriented program to promote green bonds and investment by providing a clear guidance and principles on green economic activities,³⁰ K-Taxonomy was intended to uphold a high level of sustainability.

But K-taxonomy merely repeats the obviously prohibited matters under the current law, including child labor, forced labor, serious disasters, and bribery. It paves a legitimate way for palm oil plantations to engage in 'green investment,' while their seemingly compliant practices can hide the rampant human rights violations.

There are also environmental provisions which prohibit the clearing of primary forests, peatlands, wetlands, or clear-cutting of areas greater than 30 ha,³¹ but it is unclear whether these declarative provisions could function as effectively discerning guidelines. The inclusion of biofuels in the green sector with no comprehensive human rights and environmental safeguards may ignore the social and environmental risks inherent in palm oil plantations and instill false perceptions for financial institutions and investors.

Moreover, the Ministry of Agriculture, Food and Rural Affairs (MAFRA) and Korea Forest Service (KFS) have been directly providing public loans to Korean companies operating palm oil plantations in Indonesia. Per the *Overseas Agriculture and Forest Resources Development and Cooperation Act*, the government has provided more than 80 billion KRW (60 million USD) in loans to POSCO International, LX International, Daesang, and JC Chemical by 2020.³² Every single one of these companies has been involved in deforestation and human rights violations.³³

POSCO International, in particular, was internationally criticized for destroying 26,500 ha of rainforests in Papua from 2012 to 2017, an area equivalent to more than 37,000 football pitches. POSCO's deforestation accompanied a severe encroachment upon the Indigenous Peoples' rights, but it did not stop the MAFRA and KFS from respectively lending 38.1 billion KRW (29 million USD) and 4.9 billion KRW (3.7 million USD). Similarly, Daesang, which destroyed peatlands and caused land disputes in West Kalimantan, received 6.9 billion KRW (5.2 million USD) in loans from the government.³⁴



Production of biofuels including palm oil is recognized as green economic activities and therefore eligible for green bonds and investments.

30. ME (2022), 「한국형 녹색분류체계 가이드라인」, p. 6.

http://me.go.kr/home/web/policy_data/read.do?jsessionId=CrdLvBakgLoQaqfYOvYQruph.mehome1?pagerOffset=0&maxPageItems=10&maxIndexPages=10&searchKey=&searchValue=&menuId=92&orgCd=&condition.orderSeqId=8027&condition.rnSeq=5&condition.deleteYn=N&seq=8026

31. ME (2022), 「한국형 녹색분류체계 가이드라인」, p. 52. http://me.go.kr/home/web/policy_data/read.do?jsessionId=CrdLvBakgLoQaqfYOvYQruph.mehome1?pagerOffset=0&maxPageItems=10&maxIndexPages=10&searchKey=&searchValue=&menuId=92&orgCd=&condition.orderSeqId=8027&condition.rnSeq=5&condition.deleteYn=N&seq=8026

32. Kim, S. et al. (2022), 「Importing Deforestation」, p. 83. APIL, SFOC, & KFEM <https://forourclimate.org/sub/data/view.htmlidx74>

33. For the cases of S. Korean palm oil plantations' deforestation and human rights violations, refer to the following: Chung, S. & Kim, H. (2019), 「베트남 숲에도 봄은 오는가」, KFEM & APIL, pp. 34-39. <https://apil.or.kr/reports/11948>; Kim, S. et al. (2021), 「No Good Oil to Burn」, APIL, SFOC, & KFEM, pp. 50-65. <https://forourclimate.org/sub/data/view.htmlidx44>

34. Kim, S. et al. (2022), 「Importing Deforestation」, p. 83. APIL, SFOC, & KFEM <https://forourclimate.org/sub/data/view.htmlidx74>

MAFRA and KFS funded 80 billion KRW in palm oil plantations³⁵

Company	Palm oil plantation	Provided loans (unit: million KRW)
 POSCO INTERNATIONAL	PT Bio Inti Agrindo	43,027
 LX International	PT Parna Agromas PT Tintin Boyok Sawit Makmur PT Tintin Boyok Sawit Makmur Dua PT Grand Utama Mandiri	9,975
 DAESANG	PT Sintang Raya	6,924
 JC Chemical	PT Niagamas Gemilang	20,109
Total		80,035

After facing years of criticism, the KFS replaced their measures by providing education and training to help Korean palm oil businesses to receive RSPO certifications.³⁶ In January 2022, the KFS amended the Execution Guideline on Comprehensive Capital for Forestry Projects to exclude palm oil plantation projects from loan-eligible entities and reiterated it will induce the palm oil projects that already received support to voluntarily obtain certifications.³⁷ Meanwhile, the MAFRA which had been operating the same financial support program as the KFS is still not taking any measure to prevent human rights and environmental risks when selecting loan recipients.



■ POSCO International's palm oil plantation in Papua, Indonesia ©Mighty Earth

35. Kim, S. et al. (2022), 'Importing Deforestation', p. 83. APIL, SFOC, & KFEM <https://forourclimate.org/sub/data/view.htmlidx74>
 36. GGGI (2020.1.15), "PRESS RELEASE: GGGI & RSPO Sign Memorandum of Understanding", <https://gggi.org/press-release-gggi-rspo-sign-memorandum-of-understanding/> [access date: 2023.3.1]
 37. KFS (2022.3.21), "해외 산림자원 개발 사업 진출, 지금이 기회!" https://www.forest.go.kr/kfsweb/cop/bbs/selectBoardArticle.do?bbsId=BBSMSTR_1036&mn=NKFS_04_02_01&nttId=3168957 [access date: 2023.3.5]







1.3. Sustainability policies of the palm oil industry in South Korea

The government's persistence on palm oil support policies and the lack of sustainability regulations are failing to provide any motivation for domestic companies to improve the transparency and traceability of palm oil. Since there is no institutional requirement regarding the sustainability of palm oil, the companies do not feel the need to voluntarily disclose the relevant information. As is the case overseas, it is presumed that the food manufacturing, lifestyle products, and biofuel industries in S. Korea all handle palm oil and palm derivatives, but their usage is yet to be known.

In January 2023, APIL and SFOC inquired 25 top-sales corporations in foods, lifestyle products, and biofuel industries with high potential involvement in palm oil on their supply chain sustainability policies.³⁸ Only five companies responded, and all of the lifestyle products and biofuel companies either stayed silent or refused to give a statement. Considering the gravity of deforestation and human rights violations in palm oil production, a response rate this low can be interpreted as the industry's the lack of awareness of the supply chain risks or intentional cover-up. Such attitudes are in sharp contrast to other global brands' palm oil supply chain and sustainability measures.

³⁸. Dongwon F&B responded to the inquiry but has been excluded from the main text since it does not use palm oil or palm derivatives.

Only 20% of companies responded to inquiries on their palm oil consumption

Companies that responded	
Food manufacturing	 LOTTE  NONGSHIM  samyang
Household goods	-
Biofuels using palm oil	 SAMSUNG  SAMSUNG C&T  posco INTERNATIONAL
Companies that did not respond	
Food manufacturing	CJ CheilJedang, Ottogi, Samyang Foods, SPC Samlip, Namyang Dairy Products, Maeil Dairies, Binggrae, Sajodaerim, Orion, Crown Haitai
Household goods	LG Household&Healthcare, Amore Pacific, Aekyung Chemical
Biofuels using palm oil	LX International, GS Bio, SK EcoPrime, EMAX Solutions, JC Chemical, Dansuk, Daesang

1.3.1. Food, lifestyle, and biofuel industries fail to use sustainable palm oil



Not a single drop of palm oil used in Korea is sustainable.

Even the food and lifestyle product companies that disclosed some information have extremely low or no sustainability in their supply chains. According to the RSP0 information and responses from the major food manufacturers and top three lifestyle products companies (LG Household&Healthcare, Amore Pacific, and Aekyung Chemical),^{39,40} only four companies (Samyang Foods, CJ CheilJedang, LG Household&Healthcare, and Amore Pacific) were using RSP0-certified palm oil.

As for the food industry, even the companies registered as RSP0 members were not using a meaningful volume of RSP0 palm oil. Nongshim did not disclose its RSP0 volume; Samyang Foods and CJ CheilJedang replaced less than a third of its palm oil with RSP0. Lotte Confectionary and Ottogi, despite being RSP0 members, were not using RSP0-certified palm oil. Not a single company in the food industry adopted the No Deforestation, No Peat, No Exploitation (NDPE) policy.



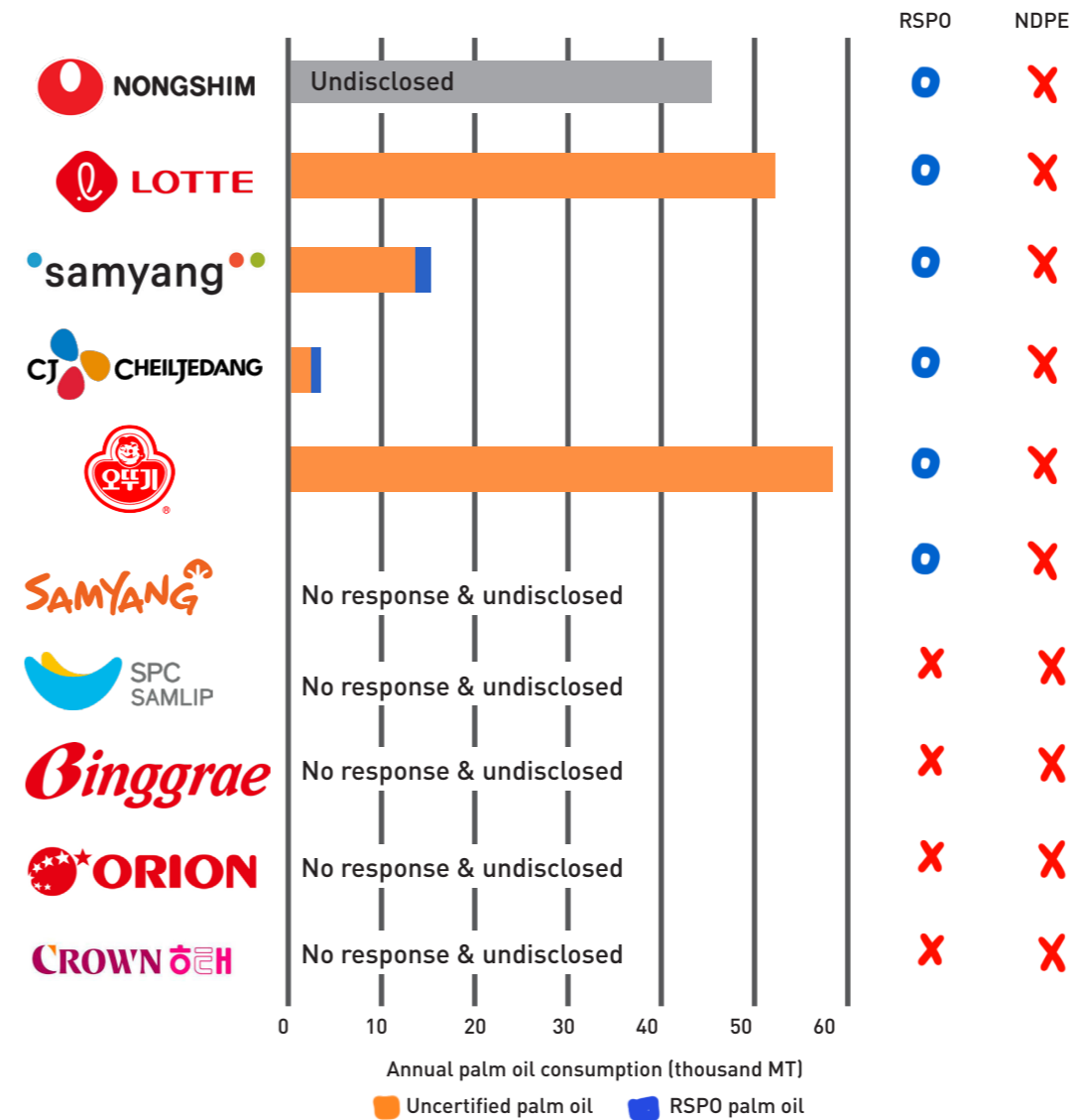
Despite the known deforestation and human rights risks, the biofuel industry refused to respond.

In the lifestyle products industry, only Amore Pacific was sourcing 100% of its palm oil RSP0-certified; LG Household&Healthcare's use of RSP0 palm oil consisted of less than a third of its total consumption. However, Amore Pacific's RSP0-certified palm oil also came from the mass balance (not traceable due to unsegregated supply chain) and book and claim (no actual certified palm oil used) models. Like the food industry, none of the companies adopted the NDPE policy.

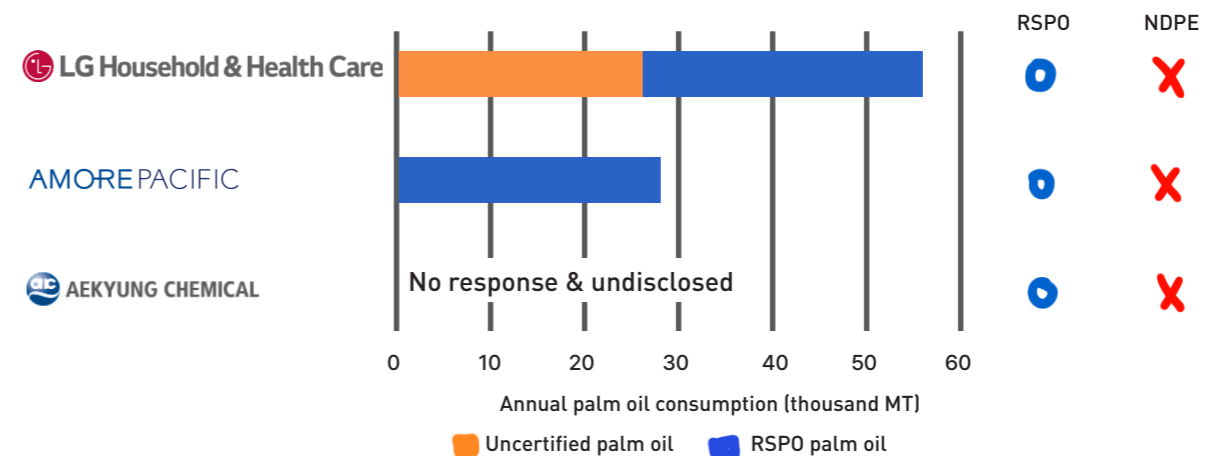
According to the Korea Bio-energy Association, six biofuel companies (SK EcoPrime, Dansuk, EMAX Solution, Aekyung Chemical, JC Chemical, and GS Bio) altogether imported 582,100 metric tons of palm oil and palm by-products in 2021 to produce biofuels.⁴¹ Despite the exposure by the report *Importing Deforestation* that the biofuel industry is sourcing from suppliers with documented cases of deforestation and human rights violations in Indonesia,⁴² none of the aforementioned companies responded to the authors' inquiry. SK EcoPrime refused to even accept the questionnaire sheet itself. In conclusion, it is clear that S. Korea is not importing a single drop of palm oil whose transparency and traceability are ensured.

39. All palm derivatives and by-products, including palm olein, palm stearin, and palm kernel oil, are collectively referred to as 'palm oil' in this report.
 40. RSP0, "Search members", <https://rspo.org/search-members/> [access date: 2022.11.24]
 41. Korea Bio-energy Association (2022), "2021년도 바이오디젤 및 바이오종유 보급 실적", 국회의원 김경만 의원실 제공.
 42. Kim, S. et al. (2022), "Importing Deforestation", pp. 48-54, 66-67. APIL, SFOC, & KFEM <https://forourclimate.org/sub/data/view.htmlidx74>

Most food companies do not disclose their palm oil usage



Lifestyle product companies use untransparent and untraceable models of RSP0 palm oil





■ RAN and SumOfUS activists calling on Ferrero to end using conflict palm oil ©Andres David Lopez

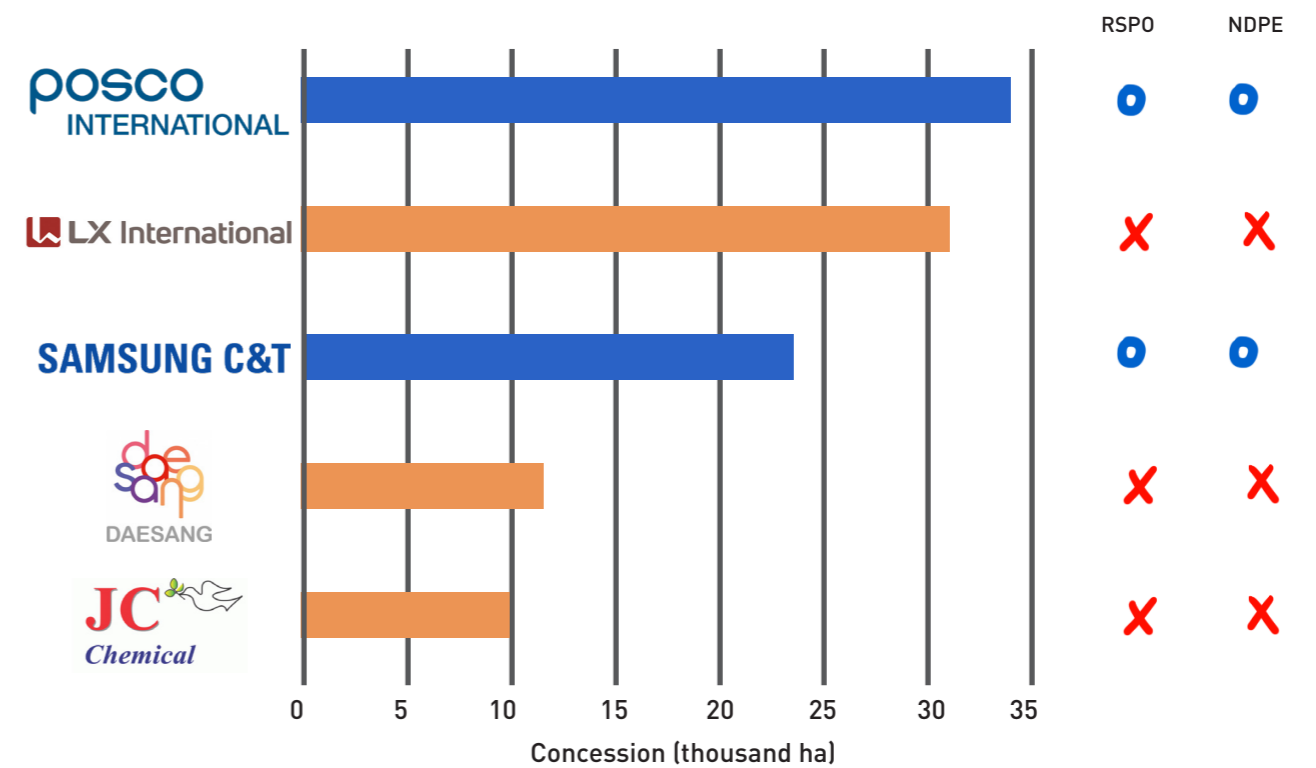
The inquiries revealed that the S. Korean industries either have limited understanding of how to respond to human rights and environmental issues that occur in the supply chain. Not a single company has conducted human rights and environmental due diligence. Even those who expressed willingness for voluntary improvement only intended to expand their use of RSPO-certified palm oil, instead of introducing more effective sustainability policies like NDPE. The lack of overall awareness, weak determination, and overreliance on the 'get out of jail free card' certification system altogether is making it more difficult to break the supply chains in S. Korea free from the well-known issues of palm oil.

1.3.2. Palm oil producers riddled with social and environmental scandals

In Indonesia, five Korean (LX International, Daesang, JC Chemical, Samsung C&T, and POSCO International) and one Korean-Indonesian (Korindo Group) corporations are operating palm oil plantations, combined area of which amount to 236,000 ha.⁴³ POSCO International and Samsung C&T, which responded to the authors' questionnaire, received RSPO certifications in 2021 and 2019, respectively, and are implementing the NDPE policy. POSCO International's plantation PT Bio Inti Agrindo (PT BIA) produces 1.9 million metric tons of CPO and palm kernels per year.⁴⁴ Samsung C&T's plantation PT Gandaerah Hendana (PT GH) and PT Inecda produce 100,000 metric tons of CPO and palm kernels annually.⁴⁵

60% of S. Korean palm oil producers in Indonesia have no sustainability policy at all; 40%, despite being RSPO-certified and under NDPE, fail to solve the problems.

Only 40% of S. Korean palm oil producers have sustainability policies



43. Drost, S. et al. (2020), 'South Korean Companies Have Outsized Impact on Palm Oil Leakage Market', CRR, <https://chainreactionresearch.com/report/south-korean-companies-have-outsized-impact-on-palm-oil-leakage-market/>

44. RSPO, "PT Bio Inti Agrindo", <https://rspo.org/members/1-0257-18-000-00/> [access date: 2023.2.4]

45. RSPO, "S&G Biofuel PTE. LTD", <https://rspo.org/members/1-0238-17-000-00/> [access date: 2023.2.4]

POSCO International “releases the NDPE Implementation Report every year and establishes an annual action plan to implement the NDPE policy each year, and transparently discloses the results of the activities to stakeholders.”⁴⁶ Samsung C&T stated it “declared the NDPE in 2019 and affirmed the dedication to operating a sustainable palm business that preserves the forest and ecosystem, and does not exploit labor to eradicate the generally negative perception that palm farms are built and operated [on] deforestation.”⁴⁷

However, both companies have caused deforestation or human rights violations in the past, problems that remain unsolved. POSCO International received criticism from home and abroad for destroying rainforests in Papua for more than five years since 2012. Government Pension Fund Global (GPFG)⁴⁸ and Stichting Pensioenfonds ABP, the world’s largest sovereign wealth funds, have withdrawn their investment, and more than 20 companies including Neste Oil, L’Oreal, and Unilever declared not trading with POSCO International until the issues are properly addressed.⁴⁹ POSCO’s NDPE declaration made against this backdrop came belatedly after already having destroyed massive forests, and the company has no plan to restore the damage. Indigenous Peoples who were robbed of their homes still suffer from physical and psychological trauma accompanied by a deep sense of loss.

Samsung C&T’s PT GH and PT Inecda were of controversy due to environmental harms (pollution and depletion of nearby rivers) and poor working conditions (high-risk, long hours, and low wages).⁵⁰ It has been reported a series of improvement measures were made afterward, but land disputes with the local communities which rose from the the project beginning are still unresolved. Local groups and residents claim that some of PT GH and PT Inecda’s plantations are in forest estates, occupying the customary land of the Indigenous Peoples without legitimate land use rights, Hak Guna Usaha (HGU). RSPO is currently conducting an investigation on this land dispute upon the communities’ submission of an official complaint.

Daesang, which did not respond to the questionnaire, has already been pinpointed by international human rights groups for the land disputes and destruction of peatlands.⁵¹ Cases of environmental pollution and conflicts with the residents have been reported in LX International and JC Chemical’s concessions as well, but it is unknown what measures are being taken.⁵² In general, the sustainability efforts put forward by the palm oil producers are inadequate at best, and communication with the local and civil society stakeholders rarely takes place. The S. Korean palm oil industry has not come anywhere close to addressing human rights and environmental risks embedded in the supply chain.



■ Villager from near POSCO International’s palm oil plantation ©SFOC

46. Posco International. “Implementation Report”, <https://www.poscointl.com/eng/esg/ndpeReport.do> [access date: 2023.02.04]

47. Samsung C&T (2022), “2022 Samsung C&T Sustainability Report”, p. 57. <https://www.samsungcnt.com/eng/esg/resource/report/sustainability.do>

48. GPFG (2015), “Recommendation to exclude Daewoo International Corporation and POSCO from the Government Pension Fund Global”, pp. 3–5. <https://etikkradet.no/recommendation-daewoo-270315/>

49. KFEM (2018.7.3), “[보도자료] 네덜란드 공적연금(ABP), 열대림 파괴 기업 포스코대우에 대한 투자 철회”, <http://kfem.or.kr/?p=192739> [access date: 2023.3.5]

50. Kim, S. et al. (2021), “No Good Oil to Burn”, APIL, SFOC, & KFEM, pp. 50–65, <https://forourclimate.org/sub/data/view.htmlidx44>

51. 전혜원 (2021.10.19), “[단독] ESG 외치던 대상, 국제단체가 인권침해 지적했다”, SisaIN, <https://www.sisain.co.kr/news/articleView.html?idxno=45752> [access date: 2023.3.5]

52. Kim, S. et al. (2021), “No Good Oil to Burn”, APIL, SFOC, & KFEM, pp. 50–65, <https://forourclimate.org/sub/data/view.htmlidx44>

2. RSPO: Efforts to strengthen sustainability in the palm oil supply chain

2.1. Market-based efforts to improve sustainability

With emerging global awareness of human rights and environmental issues in palm oil production, companies that produce or use palm oil looked for ways to protect their reputation and revenues. The market-based sustainability measures introduced at this point are the palm oil certification schemes. The certifications mainly require stricter standards than local laws for the production of products that are known to incur serious human rights and environmental impacts. A certification is given to companies that meet all the criteria, and the company can put a certification label on the product to let the consumers know.

Commonly known certification schemes include the pulp and paper industry's Forest Stewardship Council (FSC) and the chocolate and coffee industries' Rainforest Alliance and Fairtrade. Their labels can be found on the end products in stores. Labeled products are sold at higher prices than regular ones but present a meaningful alternative to consumers who are sensitive to human rights and environmental issues. Therefore, companies are motivated to participate in the certification scheme to enter markets with high demand for certified products. Naturally, the issuing organization's priority is to help companies gain access to the sustainable items market.

Major voluntary certification schemes include FSC, Rainforest Alliance, and Fairtrade

Major palm oil certification schemes are RSPO, MSPO, and ISPO



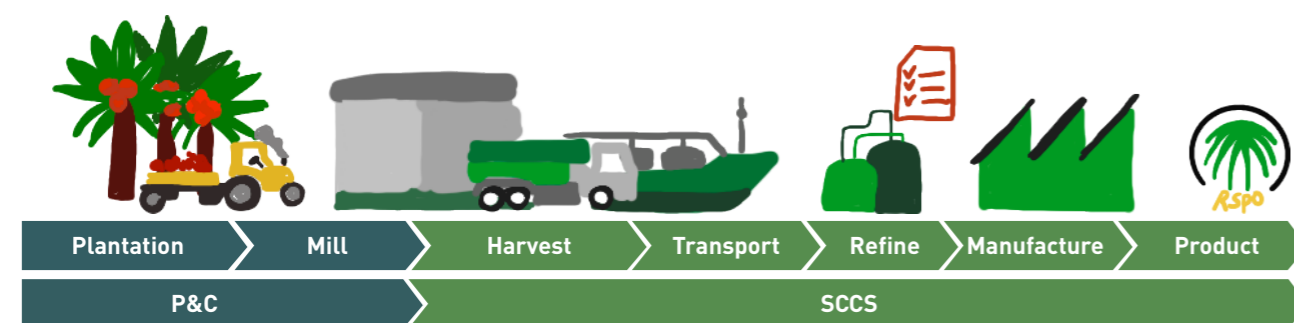
Certification systems on palm oil include RSPO, International Sustainability and Carbon Certification (ISCC), Malaysian Sustainable Palm Oil (MSPO), and Indonesia Sustainable Palm Oil (ISPO). While ISPO and MSPO are national certifications the respective governments require palm oil businesses to obtain, RSPO and ISCC are completely voluntary—it is up to the corporate discretion to receive certification. Therefore, certification schemes of a market-oriented approach, not an institutional measure set out by the governments of the producer and consumer countries to protect human rights and the environment.

2.2. RSPO, where the myth of ‘eco-friendly palm oil’ all began

Among the voluntary efforts to improve sustainability in the palm oil supply chain, the most widely known and influential certification scheme is RSPO. Launched in 2004 by the palm oil industry and the World Wide Fund for Nature (WWF), RSPO claims that purchasing sustainable palm oil contributes to the environment, local communities, workforce, and wildlife protection; thus it is better than boycotting palm oil altogether.⁵³ RSPO believes increasing the market share of certified palm oil could solve the environmental and human rights problems that arise throughout the palm oil supply chain.

RSPO issues certification to CPO, PKO, palm kernel, and palm kernel expellers (PKE). Industries using palm oil derivatives are also eligible to obtain such certification. Palm oil producers hoping to get RSPO-certified can apply for producer certification, and companies that use palm oil anywhere from sourcing to the final consumption stage may apply for supply chain certification. The former is reviewed in accordance with the RSPO Principles and Criteria (P&C), and the latter with the Supply Chain Certification Standards (SCCS). All processes are conducted by one of the 25 RSPO-designated third-party certification bodies, which also undergo accreditation by Assurance Services International, an RSPO-designated accreditation body.⁵⁴

RSPO certification has two types: P&C certification and supply chain certification



53. RSPO, <https://rspo.org/> (access date: 2022.11.25)

54. EIA & Grassroots (2019), 'Who Watches the Watchman? 2', p. 3. <https://eia-international.org/report/who-watches-the-watchmen-2/>

2.2.1. Certified with Principles & Criteria (P&C)

The P&C, consisting of three objectives and seven principles, is a set of standards that aims to ensure the sustainable production of palm oil in plantations and mills. Each principle has detailed guidelines and indicators and is amended every five years. The scheme applies to all facilities that have already been established, are in development, or will be expanded. Uncertified plantations owned by the same entity should also receive P&C audits (partial certification), and their future plans to receive certification are to be disclosed.⁵⁵

RSPO impact goals⁵⁶

Objective 1. Prosperity – competitive, resilient, and sustainable sector	Principle 1. Behave ethically and transparently
	Principle 2. Operate legally and respect rights
	Principle 3. Optimize productivity, efficiency, positive impacts, and resilience
Objective 2. People – Sustainable livelihoods and poverty reduction	Principle 4. Respect community and human rights and deliver benefits
	Principle 5. Support smallholder inclusion
	Principle 6. Respect workers' rights and conditions
Objective 3. The Earth – Conserved, protected, and enhanced ecosystems that provide for the next generation	Principle 7. Protect, conserve, and enhance ecosystems and the environment

Certification bodies examine the compliance of palm oil producers with the P&C through document and field audits and take corrective action against non-compliant cases. Upon successful completion of all the processes, the certification body issues P&C certification. P&C-certified oil palm oil growers may sell their products with RSPO claims. Along with the annual audit, certified growers go through a recertification audit every five years.⁵⁷

55. EIA & Grassroots (2019), 'Who Watches the Watchman? 2', p. 3. <https://eia-international.org/report/who-watches-the-watchmen-2/>

56. RSPO (2020), 'Principles and Criteria for the Production of Sustainable Palm Oil', p. 12. <https://rspo.org/wp-content/uploads/rspo-principles-criteria-for-production-of-sustainable-palm-oil-2018revised-01-february-2020-with-updated-supply-chain-requirements-for-mills.pdf>

57. EIA & Grassroots (2019), 'Who Watches the Watchman? 2', p. 3. <https://eia-international.org/report/who-watches-the-watchmen-2/>



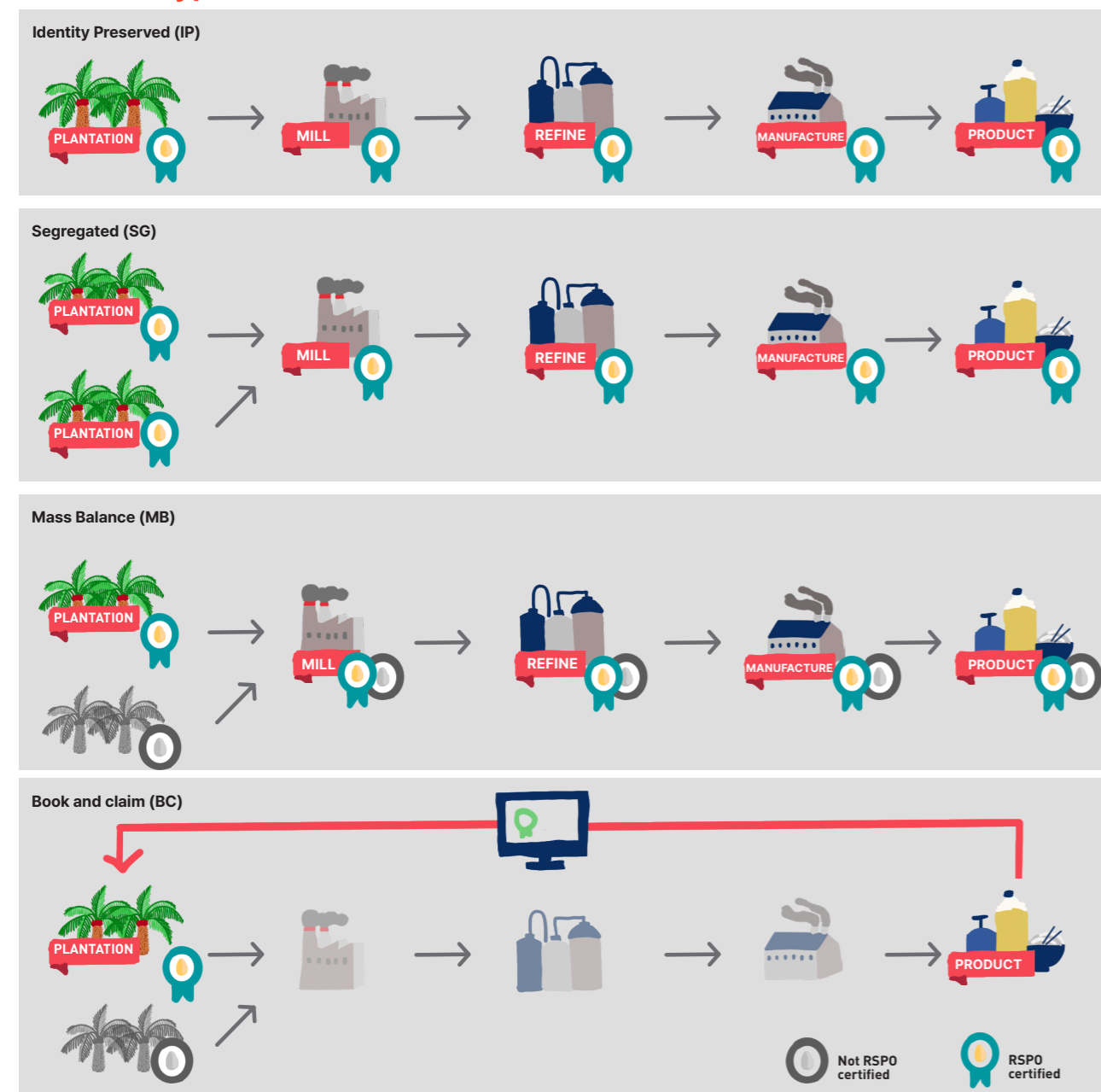
■ POSCO International's palm oil plantation in Papua, Indonesia ©Mighty Earth

2.2.2. Certified with Supply Chain Certification Standard (SCCS)

The SCCS aims to ensure transparent and traceable use of RSPO palm oil produced and certified to meet the P&C. Entities eligible for SCCS cover all midstream and downstream players, including oil palm processors, traders, consumer goods manufacturers, and retailers. SCCS-certified companies may purchase and sell RSPO-certified palm oil through the RSPO quality management system and use RSPO certification labels.

SCC certification includes the identity preserved (IP) and segregated (SG) models that separate the supply chains of RSPO-certified palm oil, the mass balance (MB) model that allows for mixing with uncertified palm oil, and the book and claim (BC) model that buys and sells credits on the RSPO system. Like the P&C, all are subject to compliance audits by certification bodies.

Types of RSPO certification models: IP, SG, MB, and BC



2.2.2.1. Identity Preserved (IP) and Segregated (SG) models

The IP model vouches the strongest level of sustainability among RSPO's supply chain management models. Under the IP system, palm oil produced from one RSPO-certified plantation is not mixed with other types of RSPO-certified or uncertified palm oil until it reaches the end consumers through the supply chain. Such separation also applies to the transportation and processing by the downstream companies. All relevant entities in the supply chain must prove that the certified material is kept physically and completely separate from any uncertified material. This model is relatively rarely used, with difficulty and high costs involved in its implementation.

The SG model ensures the second strongest sustainability after the IP model. While it also prohibits mixing with uncertified materials in the supply chain, the SG system allows mixing between IP raw materials produced from more than one plantation. Like the IP model, relevant entities in the supply chain must demonstrate that the certified material is kept physically and completely separate from any uncertified material. Products that used more than 95% of IP or SG model-certified palm oil may be sold with the 'RSPO CERTIFIED' labels. For the remaining 5%, the company must purchase RSPO credits for the remaining uncertified amount.⁵⁸

'RSPO CERTIFIED' label attached to IP and SG model-certified palm oil products⁵⁹



58. RSPO (2020), 'RSPO Supply Chain Certification Standard for Organisations Seeking or Holding Certification', pp. 17-18, https://rspo.org/wp-content/uploads/RSPO_Supply_Chain_Certification_Standard_2020-English.pdf

59. KFS & KOFPI (2022), '팜유 RSPO 인증 취득 매뉴얼', p. 214. https://www.forest.go.kr/kfsweb/cop/bbs/selectBoardArticle.do?nttlId=3169033&bbsId=BBSMS_TR_1069&mn=NKFS_06_09_01

2.2.2.2. Mass Balance (MB) model

The MB model, a mixture-type certification system, has significantly low transparency and traceability compared to the previous two separation types. It allows for RSPO-certified palm oil to be mixed with uncertified oil throughout the supply chain, which could eventually be sold to customers as 'certified mixed products.' In theory, one can claim RSPO labels only to the share of the certified amount, by using the accounting system to track the proportion of certified and uncertified materials. Some argue that it incentivizes smallholder mills and businesses to get certified, since it helps cut the costs from supply chain segregation.⁶⁰ Products using more than 50% of MB, SG, and IP model-certified palm oil can be sold with the 'RSPO 50% MIXED' label, and the company must purchase RSPO credits for the remaining uncertified amount.⁶¹

'RSPO MIXED' label attached to MB model-certified palm oil products⁶²



2.2.2.3. Book and Claim (BC) model

The BC model is a typical 'credit trading' approach that does not guarantee traceability and transparency aimed at by the RSPO supply chain certification at all. RSPO P&C-certified palm oil plantations and mills are allowed to sell credits under the condition that they sell the actual quantity as uncertified palm oil. Palm oil produced by such agents is then mixed with uncertified palm oil and eventually reaches the end users. The supply chain completely lacks any separation measures or traceability.

On the other side, midstream and downstream companies wishing to claim RSPO can easily purchase credits in the certification market, with no additional need to manage their supply chain. Credit prices are dynamically determined by the market supply and demand, and their sources are untraceable because all transactions are anonymous. Therefore, even a company that does not use actual certified palm oil at all can readily receive the 'RSPO CREDITS' label using the BC system.⁶³

'RSPO CREDITS' label attached to BC model-certified palm oil products⁶⁴



■ A villager explaining the medical herb from the forest ©SFOC

60. Greenpeace International (2021), 'Destruction: Certified', p. 35. <https://www.greenpeace.org/international/publication/46812/destruction-certified/>

61. RSPO (2020), 'RSPO Supply Chain Certification Standard for Organisations Seeking or Holding Certification', pp. 19-21, https://rspo.org/wp-content/uploads/RSPO_Supply_Chain_Certification_Standard_2020-English.pdf

62. KFS & KOFPI (2022), '팜유 RSPO 인증 취득 매뉴얼', p. 215. https://www.forest.go.kr/kfswweb/cop/bbs/selectBoardArticle.do?nttlId=3169033&bbsId=BBSMS_TR_1069&mn=NKFS_06_09_01

63. RSPO (2020), 'RSPO Supply Chain Certification Standard for Organisations Seeking or Holding Certification', pp. 34-36. https://rspo.org/wp-content/uploads/RSPO_Supply_Chain_Certification_Standard_2020-English.pdf

64. KFS & KOFPI (2022), '팜유 RSPO 인증 취득 매뉴얼', p. 215. https://www.forest.go.kr/kfswweb/cop/bbs/selectBoardArticle.do?nttlId=3169033&bbsId=BBSMS_TR_1069&mn=NKFS_06_09_01

3. Sustainability at its best? RSPO's limits

3.1. Institutional loopholes that allow greenwashing

3.1.1. Supply chain certification given to non-compliant businesses

As previously stated, the RSPO certification models include the MB and BC types. The BC model allows supply chain companies to purchase the credits, instead of using the actual RSPO-certified palm oil. Therefore, it does not mean that the palm oil contained in the end products was produced in compliance with the RSPO P&C.

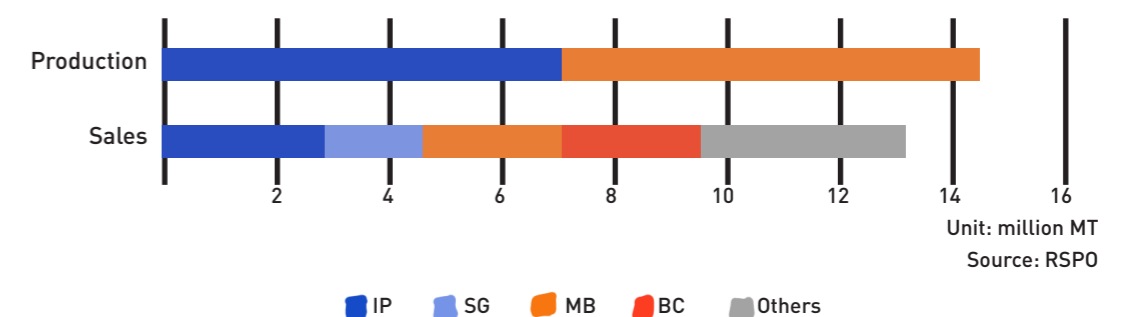
The MB model allows for mixing RSPO-certified with uncertified palm oil in production, processing, and distribution. RSPO members argue that the certified volume can be sufficiently tracked even in the MB model, as the chain of custody (CoC) system is applied to all stages of the supply chain. In reality, however, companies are not required to disclose the CoC, and pinpointing the source throughout the unseparated supply chains is virtually impossible. Therefore, it is difficult to investigate the MB model-certified companies or products' compliance with the RSPO P&C.

Contrary to the common belief, the certified palm oil market is dominated by the problematic MB and BC models. In the production stage, the IP model accounts for less than half of all RSPO palm oil, and its market sales share is merely 22%. Meanwhile, 38% of the RSPO sales is MB and BC-certified, beating those of the IP and SG combined.⁶⁵ WWF, one of the founding members of RSPO, acknowledged that the "Mass Balance remains the most popular RSPO supply chain model used by respondents, even though it does not eliminate all environmental and social risks."⁶⁶ Clearly, promoting all RSPO palm oil to be sustainable is misleading and possess the risk of greenwashing.



MB- and BC-certified palm oil, which does not guarantee the actual use of RSPO-certified oil, outweighs the traceable IP and SG palm oil.

Only 22% of RSPO palm oil sales is from the IP model (as of 2021)⁶⁷



65. RSPO, "Certification Figures", <https://rspo.org/our-impact/outcomes-and-impacts/> (access date: 2022.11.25)

66. WWF (2021), "Palm Oil Buyers Scorecard", p. 55. https://palmoiladm.panda.org/app/staticfiles/uploads/documents/WWF_2021_Palm_Oil_Buyers_Scorecard_Full_Report.pdf



■ End products containing palm oil whose origin and sustainability are difficult to trace ©SFOC

3.1.2. Failure to guarantee deforestation-free palm oil

RSPO prohibits the destruction of primary forests and High Conservation Value (HCV) areas after November 2005 and High Carbon Stock (HCS) forests, peatlands, and other conservation areas after November 15, 2018. That is, companies involved in deforestation prior to these cut-off dates are eligible to be RSPO P&C-certified without taking any action.⁶⁸ The cut-off dates employed by various voluntary certification schemes are not scientific thresholds; rather, they are more of arbitrary standards to avoid a retrospective application of activities that had happened before the certification came into effect. RSPO's cut-off year is set at 2005 because that was when the P&C was first implemented.

Even the companies that destroyed conservation areas after the cut-off date can be certified if they follow the Remediation and Compensation Procedure (RaCP). The RaCP allows the companies to offset the damage done by estimating the social liability, environmental remediation, and conservation liability from the HCV areas destroyed for the plantation development. However, it takes years to even get the process started, given the lack of resources and capacity of the RSPO Secretariat. The grounds and transparency of the remediation accounting and implementation are also unclear.

In particular, the RaCP is criticized for not properly taking social responsibility into consideration. In assessing corporate social liability, profound social impacts on the communities including the rights and livelihoods are not sufficiently factored in. As of 2020, 700,000 to 1 million ha of forests have been cleared non-compliant with the RSPO P&C, but none of the approved RaCP plans included social liability. Of all the RaCP cases submitted, only 8% was authorized by the RSPO Secretariat, with only one implementation report submitted.⁶⁹



RSPO issues certification with no consideration for deforestation that took place before 2005.



HCV assessment after deforestation has occurred cannot accurately identify what was lost, and the RaCP has never imposed social liability.

68. RSPO (2020), "Principles and Criteria for the Production of Sustainable Palm Oil", p. 62, <https://rspo.org/wp-content/uploads/rspo-principles-criteria-for-production-of-sustainable-palm-oil-2018revised-01-february-2020-with-updated-supply-chain-requirements-for-mills.pdf>

69. Newing H. (2020), "An independent review of the RSPO Remediation and Compensation Procedure (RaCP) 2015", RSPO, pp 5-6. <https://rspo.org/independent-review-of-rspo-remediation-and-compensation-procedure-2015-implementation/>

POSCO International received RSPO certification after massive deforestation

Since 2012, POSCO International's palm oil plantation PT BIA has destroyed 26,500 ha of forests⁷⁰ and gravely violated the rights of the Indigenous Peoples who were living off the land.⁷¹ But PT BIA's RaCP plan, approved by RSPO, does not include a single measure for ecosystem restoration. The plan includes the company's commitment to the conservation compensation of 35,352 ha in the nearby area already designated as the Lake Bian Wildlife Reserve and its Buffer Zone and the environmental remediation for 434 ha of riparian buffer. The plan does not include any remedy for the people either, stating that the company does not have any outstanding social liability.⁷² PT BIA, upon the authorization of its RaCP plan, became RSPO-certified in September 2021.



■ Old palm oil plantation ©SFOC

70. **GPF (2015)**, "Recommendation to exclude Daewoo International Corporation and POSCO from the Government Pension Fund Global", pp. 3-5. <https://etikkradet.no/recommendation-daewoo-270315/>

71. **Chung, S. (2020)**, "The Final Hunt", APIL & KFEM, pp. 12-24. <https://apil.or.kr/reports/13876>

72. **RSPO**, "PT Bio Inti Agrindo. RaCP — 1495. Summary of Compensation plan", <https://rspo.org/as-an-organisation/tools/remediation-and-compensation/racp-trackers/> [access date: 2023.1.20]

3.1.3. Auditors with limited independence

To receive RSPO certification, companies should hire a third-party auditor to be reviewed for compliance with the standards. Nonetheless, as the auditee chooses and pays the auditor, the auditing agency becomes financially dependent on its client. This structure with inherent conflicts of interest makes it extremely difficult for auditors to actively screen for P&C violations or limit the accreditation. Also, to ensure the independence of auditing processes, unannounced visits to the place of businesses should take place, which are not required by the RSPO Secretariat. This kind of flawed 'auditing' is shown to be ineffective as it is practically a rehearsed conversation with the interviewees selected by the employer in advance.



Auditees choosing and paying the auditor hinders with independent and impartial auditing.

Certification granted to plantations with land disputes and violence for over a decade

Socfin Group operates palm oil plantations in Africa (Cameroon, Sierra Leone, Nigeria and Côte d'Ivoire), the combined area of which amount to 90,000 ha. The Group hired the consulting firm SCS Global Services for auditing and to become RSPO-certified. But the report submitted by SCS allegedly failed to properly reflect the social and environmental impacts of Socfin's palm oil concessions.⁷³

To expand the palm oil plantations in Mbonjo, Cameroon, Socfin had been land without the Free, Prior and Informed Consent (FPIC) and engaging in sexual and physical assaults against the residents. The local community relayed the matter to the auditors in the RSPO certification process; however, upon deciding that the RaCP would offset the problems, RSPO went ahead to issue the certification in 2021. Some claim that the report submitted by the auditor was biased towards the company, and the RSPO Secretariat, despite aware of the scandals, practically exonerated the company from its past actions.⁷⁴

Meanwhile, another plantation owned by Socfin Group's Nigerian subsidiary has been found to be associated with land disputes and oppression against the land and environmental defenders since 2010. Despite the well-known conflicts covered by the media, local communities and the defenders were excluded from the interviews for the RSPO certification process. This prompted the auditor to submit a report favoring the company, leading to its certification.⁷⁵

73. **Milieudefensie (2022.3.18)**, "The Socfin RSPO complaints process: paperwork versus reality", https://en.milieudefensie.nl/news/milieudefensie-reaction-to-asi-scs-socfin-rspo-complaint_march-2022-1.pdf [access date: 2023.3.4]

74. **Scheider, V. (2022.9.9)**, "As a Cameroon palm oil firm gets RSPO certified, it's also found in breach", Mongabay.

75. **Mukpo, A. (2021.11.22)**, "At a 'certified' palm oil plantation in Nigeria, soldiers and conflict over land", Mongabay. <https://news.mongabay.com/2021/11/at-a-certified-palm-oil-plantation-in-nigeria-soldiers-and-conflict-over-land/> [access date: 2023.3.4]



Oil palm fruit bunches ©APIL

3.2. Inadequate implementation that does not meet the standards

3.2.1. Ineffective sanctions against non-compliance

Essentially, RSPO is a market-based approach that relies on voluntary change of action by the member companies. RSPO's mission is to motivate more palm oil-related actors to become certified and have access to the 'sustainable palm oil' market. Naturally, RSPO assigns a higher importance to the corporate willingness to maintain their RSPO membership and deliver promises, rather than managing their compliance to social and environmental standards.

But such a market-centered approach obstructs meaningful sanctions from being imposed against the violators.⁷⁶ A case in point is the Peruvian RSPO member Plantaciones de Pucallpa (PdP), which received an investigation by the RSPO Complaints Panel for clearing 5,000 ha of forests. PdP, however, simply withdrew its membership before the final decision was made. The Panel had no choice but to lethargically state in its final report that "these findings and decision are of moral and persuasive value only, and cannot be enforced in light of Plantaciones de Pucallpa's resignation as a RSPO member."⁷⁷

Suspension of RSPO membership occurs rarely, but even when it does, it fails to be an effective sanction because the canceled membership is often swiftly restored. For instance, Nestlé, the food giant, had lost its membership on June 27, 2018, for non-submission of the annual report and membership fees yet quickly had it restored on July 20, 2018, only three weeks after.⁷⁸

Moreover, RSPO is not taking action against members that breach the local laws. In Indonesia, land concessions of 3,118,804 ha (19% of all palm oil plantations) are reportedly located in forest estates in violation of the Forestry Act.⁷⁹ Among them, 283,686 ha are RSPO-certified,⁸⁰ of which more than 100 RSPO member companies are operating concessions of greater than 100 ha.

76. EIA & Grassroots (2019), 'Who Watches the Watchman?', p. 13. <https://eia-international.org/report/who-watches-the-watchmen-2/>

77. FPP (2017.5.22), "Press: RSPO ruling condemns Plantaciones de Pucallpa for its destruction of over 5000 hectares of the Peruvian amazon but deforestation and threats to community leaders continue", <https://www.forestpeoples.org/en/global-finance-trade-palm-oil-rspo/press-release/2017/press-rspo-ruling-condemns-plantaciones-de> (access date: 2023.3.4)

78. Koe, T. (2018.7.19), "Nestlé back in RSPO, pledged to achieve 100% RSPO certified palm oil in five years' time", FoodNavigator. <https://www.foodnavigator-asia.com/Article/2018/07/19/Nestle-back-in-RSPO-pledged-to-achieve-100-RSPO-certified-palm-oil-in-five-years-time> (access date: 2023.3.4)

79. Koran Tempo (2019.3.22), "Ratusan Perusahaan Sawit Mencaplok Hutan", <https://koran.tempo.co/read/laporan-utama/440992/ratusan-perusahaan-sawit-mencaplok-hutan> (access date: 2023.3.4)

80. Greenpeace Southeast Asia-Indonesia (2021), 'Deceased Estate: Illegal Palm Oil Wiping Out Indonesia's National Forest', pp. 16-19. <https://www.greenpeace.org/southeastasia/publication/44744/deceased-estate-illegal-palm-oil-wiping-out-indonesias-national-forest/>



■ Riparian ecosystem of Indonesia ©SFOC



■ Samsung C&T's palm oil plantation and mill in Riau, Indonesia ©APIL

Samsung C&T allegedly operates palm oil concessions in forest estate without HGU

Operating palm oil plantations without land use rights (HGU) is known to be common in Riau Province, the biggest source of CPO production in Indonesia. According to the 2021 report by Eyes on the Forest (EoF), an Indonesian deforestation watch group, 250,000 ha (47% of all palm oil plantations in Riau) is located in forest estate, and 2.1 million ha is in operation without HGU.⁸¹ The same report also argues that Samsung C&T's plantations, PT Gandaerah Hendana (PT GH) and PT Inecda, operating in forest estates without HGU.

EoF revealed that out of its total business area of 16,849 ha, PT GH is occupying 2,978 ha without HGU, 2,388 ha of which is in forest estate.⁸² The allegation is backed by the point raised by the Riau HGU special investigative unit since 2015, as well as various press reports.^{83,84} Conflicts over HGU still seem to persist in 2022.^{85,86}

As for PT Inecda, it is reported that the concession occupies 6,186 ha (twice the legally permitted area of 3,261 ha) without HGU, 289 ha of which are in forest estates.⁸⁷ This is in line with the Talang Parit community's claim that they were robbed of their customary land without FPIC.⁸⁸ The Talang Parit tribe raised a complaint to the RSPO against PT Inecda in March 2021, based on the absence of FPIC in the land release process, non-provision of plasma farms to the local community, and lack of accessible internal grievance procedures.⁸⁹

Samsung C&T denied the above claims in a letter sent to APIL and SFOC in October 2022. It stated that the report was likely based on scattered information and assumptions, and that the information on the plantations' total areas and HGU were inaccurate since the Indonesian government does not disclose HGU details. In addition, the company claimed that there exist minor inconsistencies between the HGU and the concessions attributable to the administrative processes by the Indonesian government, and a permit revision process is underway. Samsung C&T said it is untrue that the Talang Sungai Parit villagers have lost their homes, and it will continue carrying on with the co-prosperity policies and social responsibilities.

81. EoF (2021), "Omnibus Law bukan legalisasi otomatis untuk kebun-kebun sawit ilegal", p. 1. <https://www.eyesontheforest.or.id/reports/omnibus-law-bukan-legalisasi-otomatis-untuk-perkebunan-sawit-ilegal>

82. EoF (2021), "Omnibus Law bukan legalisasi otomatis untuk kebun-kebun sawit ilegal", p. 54. <https://www.eyesontheforest.or.id/reports/omnibus-law-bukan-legalisasi-otomatis-untuk-perkebunan-sawit-ilegal>

83. Sophian, A. (2015.9.21), "PT Gandaerah Hendana Garap 2000 Hektar Lahn di Luar HGU", Potretnews.com. <https://www.potretnews.com/berita/baca/2015/09/21/pt-gandaerah-hendana-garap-2000-hektar-lahan-di-luar-hgu> (access date: 2023.3.4)

84. Rozi, F. (2015.10.27), "PT. Gandaerah Hendana diduga garap lahan di luar HGU dan izin pelepasan", GoRiau.com. <https://www.goriau.com/berita/baca/pt-gandaerah-hendana-diduga-garap-lahan-di-luar-hgu-dan-izin-pelepasan.html> (access date: 2023.3.4)

85. RiauPagi.com (2022.7.7), "Dewan evaluasi PT Gandaerah Hendana, 'Karena Diduga Sudah Melanggar Perizinan'", <https://riaupagi.com/news/dewan-evaluasi-pt-gandaerah-hendana-karena-diduga-sudah-melanggar-perizinan-202211074876/> (access date: 2023.3.4)

86. WALHI Riau (2023), "Tinjauan Lingkungan Hidup 2023. Tahun Politik: Menagih Janji Yang Belum Tuntas!", https://www.walhiriau.or.id/wp-content/uploads/2023/02/TLH_WALHI_Riau_2023_Cet_Pertama_final.pdf

87. EoF (2021), "Omnibus Law bukan legalisasi otomatis untuk kebun-kebun sawit ilegal", p. 64. <https://www.eyesontheforest.or.id/reports/omnibus-law-bukan-legalisasi-otomatis-untuk-perkebunan-sawit-ilegal>

88. ASM Law Office (2021.11.24), "Talang Mamak Tribe Community Monitoring on Food Security, in Riau-Indonesia", <https://youtu.be/MBfYGsgV5uU> (access date: 2023.3.4)

89. RSPO, "PT Inecda (a subsidiary of S&G BIOFUEL PTE. LTD)", <https://askrspo.force.com/Complaint/s/case/5000o00003CMsrzAAD/detail> (access date: 2023.2.1)

3.2.2. Complaints process insufficient for conflict resolution

RSP0 has an official complaints system that allows anyone to raise a petition regarding member companies' violation of sustainability policies. If deemed valid, RSP0 issues a series of recommendations through regular reports for the company to investigate and solve the issues. RSP0 sometimes takes punitive measures such as temporary suspension order, but there are also cases that are pending for more than ten years.^{90, 91} Research by Convoca, a journalism network in Peru, shows that 141 complaints were submitted to RSP0 from 2009 to 2021, most of which were land dispute cases raised by the local communities. Nevertheless, the RSP0 Secretariat dismissed 49% of the complaints, resulting in criticism for running an industry-biased Complaints Panel.^{92, 93}

Most RSP0 complaints are regarding land disputes⁹⁴



Source : Torrico & Montesinos, 2022

Complaint to OECD National Contact Point (NCP) against RSP0 for delaying the grievance procedure

In 1995, Indonesia's Mitra Austral Sejahtera (MAS) obtained HGU and started operating palm oil plantations in the Dayak indigenous village, after verbal promises to the local community for electricity, housing, hospital, schools, and employment. But the company never kept the promise, and the locals went on to request Sime Darby, a Malaysian conglomerate that purchased the plantation in 2007, to uphold the commitment. Sime Darby responded with years of inaction, which prompted the community to submit a complaint to RSP0 through TuK Indonesia, a local civil rights group. Nevertheless, even RSP0 failed to take any follow-up measure until 2018. TuK Indonesia Eventually filed a complaint against RSP0 to the Swiss National Contact Point (NCP) of the Organisation for Economic Co-operation (OECD), where RSP0 is registered, for violation of the OECD Guidelines for Multinational Enterprises.⁹⁵



■ A cross signifying the solidarity and resistance of the community ©SFOC

90. Cuddy, A. (2017.5.7), "RSP0 freezes palm oil company's operations in Papua", Mongabay. <https://news.mongabay.com/2017/05/rspo-freezes-palm-oil-companys-operations-in-papua/> (access date: 2023.3.4)

91. WRM (2014), "Liberia - RSP0's inability to address root causes of the conflict related to Sime Darby's operations", WRM Bulletin 201, <https://www.wrm.org.uy/bulletin-articles/liberia-rsp0s-inability-to-address-root-causes-of-the-conflict-related-to-sime-darby-s-operations> (access date: 2023.3.4)

92. Torrico, G. & Montesinos, E. (2022.6.9), "RSP0: Over a hundred complaints fail to curb palm oil's impact on rainforests", Convoca. <https://convoca.pe/investigacion/rspo-over-hundred-complaints-fail-curb-palm-oils-impact-rainforests> (access date: 2023.3.4)

93. EIA & Grassroots (2019), "Who Watches the Watchman? 2", pp. 23-25. <https://eia-international.org/report/who-watches-the-watchmen-2/>

94. Torrico, G. & Montesinos, E. (2022.6.9), "RSP0: Over a hundred complaints fail to curb palm oil's impact on rainforests", Convoca. <https://convoca.pe/investigacion/rspo-over-hundred-complaints-fail-curb-palm-oils-impact-rainforests> (access date: 2023.3.4)

95. OECD Watch, "TuK Indonesia vs. Roundtable on Sustainable Palm Oil (RSPO)", <https://www.oecdwatch.org/complaint/tuk-indonesia-vs-roundtable-on-sustainable-palm-oil-rspo/> (access date: 2023.1.21)

3.2.3. Questionable improvement on environmental and social conditions



■ Children from near POSCO International's palm oil plantation in Papua, Indonesia ©SFOC

In 2018, researchers at the University of Queensland in Australia evaluated the difference in sustainability impacts between RSPO-certified and non-certified palm oil plantations.⁹⁶ It was found that RSPO had a positive effect limited to the oil palm production and a rise in corporate stock prices. However, there was no significant difference between the certified and non-certified plantations across sustainability indices. The study also pointed out there is no evidence that RSPO certification is effective in protecting the orangutans. RSPO delivered almost no benefits to mitigating fire outbreaks, the wealth of nearby villages, or improving access to medical infrastructure. To address sustainability issues, a significant improvement in the principles and standards of RSPO and more rigorous implementation must be followed, recommended the authors.

A joint 2020 study by researchers in Singapore, the US and UK also discovered that while RSPO certification somewhat contributed to mitigating deforestation and environmental degradation,⁹⁷ such improvements could have come from the environmental regulations and ISPO enforced by the Indonesian government. Population decrease in areas near the palm oil plantations was another factor that could not be ruled out. In terms of community development, despite the increase in the number of educational institutions, there was no statistically meaningful advancement made to the development indices of the local communities.



There is no evidence that RSPO certification brought more positive impacts to local communities.

96. Morgans, C. L. et al. (2018), "Evaluating the effectiveness of palm oil certification in delivering multiple sustainability objectives", Environmental Research Letters, 13(6), <http://doi.org/10.1088/1748-9326/aac6f4>

97. Lee, J. S. H. et al. (2020), "Does oil palm certification create trade-offs between environment and development in Indonesia?", Environmental Research Letters, 15(12), <http://doi.org/10.1088/1748-9326/abc279>

Even with RSPO certification, Indigenous communities continue to be infringed upon

The forests destroyed by POSCO International's PT BIA once used to be a long-cherished homeland of the Indigenous Papuans. The IPLCs have the rights to possess, use, and manage the land, resources, and territories they live off of, as stipulated in Article 26 of the UN Declaration on the Rights of Indigenous Peoples (UNDRIP). Therefore, just like any other stakeholders, the IPLCs have the rights to participate in decision-making processes through the FPIC regarding the overall business proceedings that take place on their land.⁹⁸ The UNDRIP emphasizes that FPIC shall not be replaced with one-time consent.

In May 2022, APIL and SFOC interviewed the Subur residents of Papua, who lost their forests due to PT BIA's development. Villagers responded that PT BIA cleared the forests without FPIC procedures, which have been disregarded throughout the project phases.⁹⁹ The Indonesian law stipulates that a part of the plantation shall be operated in the form of plasma farms for the prosperity of the local communities, of which the villagers had no knowledge. Even after PT BIA became RSPO-certified and adopted the NDPE policy, the villagers were not provided with an opportunity to raise issues on the company's violations of their rights.

"It is not true [that PT BIA is producing sustainable palm oil through RSPO or NDPE]. I would believe it if they came here and talked to the villagers, but that never happened. It is a deceitful lie that they are producing sustainable palm oil."

-August Tomba from Subur Village

The locals say their lives became a lot harder after PT BIA went into operation. The forests, where they picked sago palm fruits as a daily staple and went hunting, disappeared. Koreans visited the village more than ten years ago and promised clean water, medical facilities, and schools, but the promise still rings hollow. After the plantations, they are not seeing the seasonal fruits, and the fish are often too spoiled to eat.

"A person called Mr. Lee obviously knew that we owned this land. Mr. Lee promised us to give clean water, education, and medical facilities, but he never kept his word."

-Albertina Buroq from Subur Village

"We all feel the impact of the palm oil plantation. Trees stopped bearing seasonal fruits. There is no 'fruit season' anymore. The plantation affects plants, animals, and even the river. We could store the caught fish for a long time, but they spoil so easily now. Fish caught in the morning need to be cooked right away."

-Paulus from Subur Village

98. UNGA (2018), "Free, prior and informed consent: a human rights-based approach", A/HRC/39/62, para 15, <https://www.ohchr.org/en/documents/thematic-reports/free-prior-and-informed-consent-human-rights-based-approach-study-expert>

99. This is in line with the testimonies of the local people who lost their forests in the PT BIA's plantation development stated earlier. See following for details: KTNC Watch, (2019.12.12), "[보도자료] 포스코 인터내셔널의 팜유 사업장에서 발생한 환경, 인권 문제, OECD 국내연락사무소 진정서 제출", APIL, <https://apil.or.kr/press-releases/12997> (access date: 2023.3.5)



■ A villager who lost her forest to POSCO International's palm oil plantation ©SFOC

4. Recommendations to strengthen sustainability in the palm oil supply chain

The increasing demand for palm oil has led to the expansion of plantations into the forests of Southeast Asia. RSPO, the most recognized voluntary palm oil certification scheme, made its appearance with a promise to transform the palm oil supply chain. However, RSPO's institutional loopholes and insufficient implementation have left sustainability an unsolved dilemma, turning this market-based approach into the industry's go-to greenwashing tool justifying deforestation and human rights violations.

Meanwhile, S. Korea's palm oil imports nearly doubled in the past decade due to the blanket support for biofuels. While the government continues to provide public finance for S. Korean companies operating palm oil plantations, both the public and private sectors have been failing to take actions to ensure sustainability in the supply chain. Now S. Korea too must learn from the precedents of other major economies by introducing due diligence-based regulations.

4.1. Role of the Korean government

4.1.1. Mandatory human rights and environmental supply chain due diligence

Contrary to growing interest in the environment, social, governance (ESG) management, its implementation is rarely meaningful as most companies merely present superficial indicators and outsource evaluations. With the widespread ill-advised ESG practices that lack clear and rigorous standards, it is impossible to effectively identify and address human rights and environmental issues that occur in the supply chain. It is not uncommon that so-called 'leading ESG companies' found out to be deeply involved in severe human rights and environmental harms.

For instance, not only did POSCO International committed massive deforestation and violated the rights of the IPLCs for developing palm oil plantations, it also shared its profit from the gas mining in Myanmar with the military even after the coup. Nevertheless, POSCO International received an A+, the highest grade, in the Korea Institute of Corporate Governance and Sustainability's (KCGS) ESG evaluations for three consecutive years¹⁰⁰ and an A in the social sector of the Korea Productivity Center's (KPS) K-ESG assessment in 2021.¹⁰¹ The reality is that ESG evaluations are being conveniently misappropriated as a corporate publicity tool, irrelevant to the companies' actual responses to human rights and environmental risks in the supply chain.



■ KFEM activists calling on Posco International (then Posco Daewoo) to stop deforestation in Papua, Indonesia ©KFEM

100. 포스코 (2021.10.27), "포스코·포스코인터내셔널 한국기업지배구조원 ESG평가 최고등급 획득", <https://newsroom.posco.com/kr/%ED%8F%AC%EC%8A%A4%EC%BD%94%E2%80%A2%ED%8F%AC%EC%8A%A4%EC%BD%94%EC%9D%B8%ED%84%B0%EB%82%B4%EC%85%94%EB%84%90-%ED%95%9C%EA%B5%AD%EA%B8%B0%EC%97%85%EC%A7%80%EB%B0%B0%EA%B5%AC%EC%A1%B0%EC%9B%90esg/> [접속일: 2023.3.5]

101. 박정환 (2021.4.22), "[단독]미얀마 군부 '돈줄' 의혹 포스코인터...ESG 최상위 평가 논란", 「Nocutnews」 <https://www.nocutnews.co.kr/news/5539940> [access date: 2023.3.5]

4.1.1.1. Introduction of comprehensive corporate supply chain due diligence legislation

In light of the inherent limitations of ESG, mandatory human rights and environmental due diligence measures have been introduced in various jurisdictions. Due diligence in this sense refers to the entire processes encompassing efficacy verification, feedback sharing, and disclosure of information to help companies address human rights and environmental impacts that may occur in the business. Due diligence also entails the company's communication with relevant stakeholders through the identification, establishment, and implementation of response measures on such impacts. European countries are either enacting or preparing legislation on human rights and environmental due diligence. For instance, France and Germany have already made it mandatory for corporations to conduct due diligence across the entire supply chain. The EU is undergoing discussions to introduce the Corporate Sustainability Due Diligence Directive (CSDD).

The draft CSDD proposed by the European Commission (EC) in February 2022 obliges companies operating in the EU market to conduct due diligence on their human rights and environmental impacts. The scope of the due diligence covers value chains connected to subsidiaries and established business relationships. Accordingly, the business entity should identify any potential and actual adverse impacts on human rights and the environment caused by business activities. Companies subject to the CSDD are to implement due diligence measures to prevent, mitigate, and improve such impacts. The monitoring and inspection on the fitness of the due diligence policies are to take place more than once every year, and the results will be disclosed to the public.¹⁰²

Since the initial proposal of the CSDD, the EU is actively having discussions on the scope of the eligible companies and environmental impacts, and whether climate change responses should be obliged in the due diligence. The European Parliament's (EP) Committee on Economic and Monetary Affairs (ECON) suggested that financial institutions should also be obliged for due diligence;¹⁰³ the Committee on Environment, Public Health and Food Safety (ENVI) agreed that the environmental impacts should encompass impacts on soil, water, biodiversity, and climate, and not be limited to the violation of certain environmental agreements.¹⁰⁴ The EP plans to finalize the CSDD in May 2023.

102. EU (2022), 'Proposal for a DIRECTIVE OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL on Corporate Sustainability Due Diligence and amending Directive (EU) 2019/1937', <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A52022PC0071>

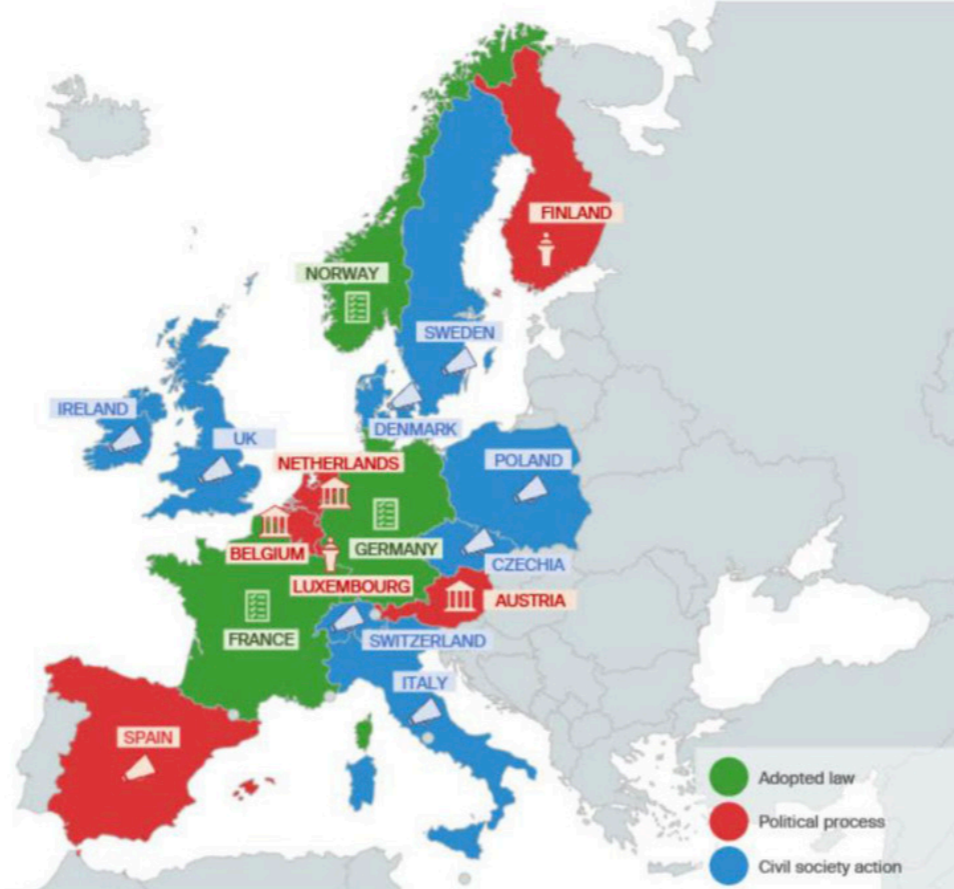
103. KITA (2023.1.13), "유럽의회 경제통화부, 공급망실사 대상에 금융서비스 기관 포함 요구", <https://www.kita.net/cmmrInfo/cmerInfo/areaAcctoCmerInfo/euCmerInfo/euCmerInfoDetail.do?pageIndex=1&no=1830138&searchReqType=DETAIL> [access date: 2023.3.5]

104. ECCJ (2023.2.9), "MEPs Slowly Turn Tide on Corporate Environmental and Climate Obligations", <https://corporatejustice.org/news/meps-slowly-turn-tide-corporate-environmental-climate-obligations/> [access date: 2023.3.4]

Europe is pushing for human rights and environmental supply chain due diligence legislation¹⁰⁵



FRANCE	Law on the duty of vigilance of parent and outsourcing companies
GERMANY	Law on the corporate duty of care in supply chains
NETHERLANDS	Law on child labour due diligence
NORWAY	Law on business transparency and human rights and decent working conditions
AUSTRIA	Parliamentary proposal for a supply chain law
BELGIUM	Parliamentary proposal on the corporate duty of vigilance and care in value chains
FINLAND	Government commitment to due diligence legislation
LUXEMBOURG	Government commitment to due diligence legislation
NETHERLANDS	Government commitment to due diligence legislation Parliamentary proposal on responsible and sustainable international business conduct
SPAIN	Government's Annual Regulatory Plan includes a legislative initiative on due diligence



Source: ECCJ, 2022

The primary duty of a government is to protect human rights, and the S. Korean government needs to address human rights violations and environmental harms related to palm oil production. The government should legislate a human rights and environmental due diligence act that applies to all entities with established business relations. Financial and investment organizations should also conduct mandatory due diligence to avoid any involvement in adverse consequences. For effective implementation, administrative agencies should require companies to transparently disclose the implementation details for review. For non-compliant entities, corrective actions, disposition, or fines should be imposed to ensure compliance. Additionally, the government should establish grounds for the victims of human rights violations and environmental harms to access relief procedures.

105. ECCJ (2022.1.25), "Map: Corporate accountability legislative progress in Europe", <https://corporatejustice.org/publications/map-corporate-accountability-legislative-progress-in-europe/> (access date: 2023.3.4)

MOTIE mistook RSPO for human rights due diligence without providing relief measures to IPLCs

The S. Korean government has once recognized RSPO as a 'best practice case' for respecting human rights and the environment. In December 2019, S. Korea's KTNC Watch and Indonesian human rights and environmental groups filed a complaint to the Korean NCP under the MOTIE, with regards to POSCO International violating the OECD Guidelines for Multinational Enterprises. The Guidelines oblige companies to respect human rights and the environment, with the implementation ensured through due diligence. In contrast POSCO International destroyed the rainforests of Papua, violated the FPIC rights of the IPLCs, and threatened their access to water. The Export-Import Bank of Korea, which provided the loans, and the National Pension Service, an institutional investor, also became the respondents of the complaint for being involved in POSCO International's environmental harms and human rights violations, thereby violating the OECD Guidelines.

During the two years of the complaint proceedings, POSCO International adopted the NDPE policy and obtained RSPO certification. The complainants made it clear to the NCP at this time that substantiated implementation is to take priority over the declarative policy, and a voluntary certification scheme cannot be equated with due diligence. However, the NCP closed the case, stating that POSCO International's RSPO certification 'constitutes a best practice example of the OECD Guidelines.'¹⁰⁶



Indonesian activists protesting against land and forest grabbing ©PUSAKA

106. KTNC Watch (2022.1.21), "[Statement] KTNC Watch Condemns Korean NCP for Failing to Provide Remedies to Indigenous Peoples Who Have Lost Their Forest for Life to Palm Oil Plantations", APIL, <https://apil.or.kr/?p=23219> (access date: 2023.3.5)

4.1.1.2. Regulation on the imports and sales of forest-risk commodities

To address the gravity of global deforestation, some countries require more stringent due diligence on agroforestry commodities. The EU has focused on the fact that the conventional timber regulation with a focus on eradicating illegal logging and voluntary certification schemes was falling short in curbing deforestation caused by commodity production. What needed was a comprehensive set of regulations which addresses 'imported deforestation' implemented through stringent human rights and environmental supply chain due diligence.

In December 2022, the EP agreed on the regulation on deforestation-free products (EUDR),¹⁰⁷ which aims to regulate deforestation and forest degradation in the production of high-risk commodities, such as palm oil, beef, soy, coffee, cocoa, timber, rubber, and their derivatives. Companies handling these items should be able to demonstrate that they are not produced from where deforestation has taken place after the cut-off date of December 31, 2020. Accordingly, supply chain companies involved in production, importation, distribution, and sales should comply with the EUDR verification requirements by submitting human rights

and environmental due diligence reports containing geocoordinates, satellite photos, and on-site audits.¹⁰⁸ Voluntary certifications like RSPO may be attached as reference items but cannot replace the supply chain due diligence requirement.¹⁰⁹

A similar policy in S. Korea is the regulation to promote legal timber trade in 2019 to end the imports of illegal timber, but the regulation is limited to the legality of the select timber items only, let alone the sustainability of palm oil. The import criteria requires only either voluntary certification or national legality document issued in the producer country without a consideration for corporate supply chain due diligence.¹¹⁰ A trading system reliant upon legality has only limited effect on forest conservation because it cannot respond to deforestation that is deemed legal. It is high time for S. Korea to designate the high-risk commodities contributing to deforestation and forest degradation and make it mandatory for companies to conduct thorough human rights and environmental due diligence on their supply chain.

In addition, the same human rights and environmental due diligence should also be applied to financial support for high-risk businesses. The MAFRA and KFS were involved in the deforestation and human rights violations of their loan recipients because these government agencies did not require any due diligence from the businesses. Only the companies proven not to be involved in any adverse should be eligible to receive public loans. Along the same line, the KFS should require the producers and importers handling forest-risk products more stringent human rights and environmental due diligence throughout their entire supply chain.



Imports and sales of products contributed to deforestation or forest degradation should be prohibited and verified through supply chain due diligence.



■ Korindo's palm oil plantation development in Papua, Indonesia ©Mighty Earth

107. EC (2022.12.6), "Green Deal: EU Agrees Law to Fight Global Deforestation and Forest Degradation Driven by EU Production and Consumption", https://ec.europa.eu/commission/presscorner/detail/en/ip_22_7444 (access date: 2023.3.4)

108. 윤용희 (2022.12.21), "산림 훼손 방지 위한 EU 산림전용규정, 앞으로 어떻게 시행될까?", 「KOTRA 해외시장뉴스」, https://dream.kotra.or.kr/kotranews/cms/news/actionKotraBoardDetail.do?SITE_NO=3&MENU_ID=90&CONTENTS_NO=1&bbsGbn=244&bbsSn=244&pNttSn=199314 (access date: 2023.3.5)

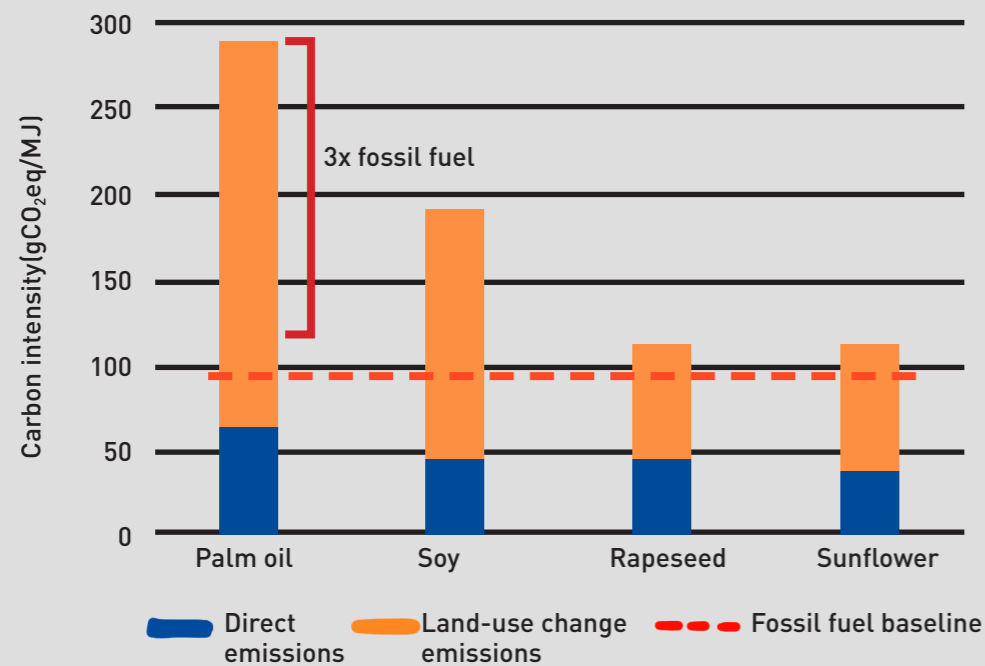
109. EC (2022), 'ST 16298 2022 INIT – Outcome of Proceedings', pp. 78–80. <https://data.consilium.europa.eu/doc/document/ST-16298-2022-INIT/en/pdf>

110. KFS (2020), 'Korea's Regulation to Promote Legal Timber Trade', pp. 4–5. <https://english.forest.go.kr/images/content/data/down/Leaflet.pdf>

4.1.2. Biofuel policies with sustainability safeguards

As the recent rise in S. Korea's palm oil imports is attributable to the expanded use of biofuels, energy policies should secure sustainability first before promoting a quantitative growth. The EU, for example, had already experienced a series of human rights and environmental issues related to palm oil for over a decade. The 2015 research commissioned by the EC concluded that the indirect land-use change (ILUC) emissions of palm oil outweighed its climate benefits. When combined with direct emissions, including the harvest, processing, and distribution stages, palm oil's GHG emissions are to be at least three times higher than those of the fossil fuel baseline.¹¹¹

Palm oil-based biodiesel emits three times more GHGs than the fossil fuel baseline



111. KFS (2020), 'Korea's Regulation to Promote Legal Timber Trade', pp. 4-5. <https://english.forest.go.kr/images/content/data/down/Leaflet.pdf>

4.1.2.1. Suspension of support for 'fake' renewable energy

Based on these findings, the RED II in 2018 raised the GHG emissions savings standards of biofuels and placed a cap on the share of crop-based biofuels at 7% of the total transport fuels. More importantly, designating palm oil as a high ILUC risk feedstock, the EU has decided to phase out palm oil-based transport biofuels by 2030.¹¹² RED III approved in 2022 added soy to the list of high-ILUC feedstocks and proposed an immediate phase-out of these fuels once the amendment comes into effect.¹¹³ Following a series of policy changes, France, Austria, Denmark, Sweden, the Netherlands, and Portugal have already sunset their support for palm oil-based biofuels. Germany will follow suit by 2023.¹¹⁴

In contrast, S. Korea has only technical quality standards to help the blending of biofuels, not the ones designed to enhance environmental sustainability.¹¹⁵ It is time for the S. Korean government to introduce stringent sustainability criteria as prerequisites for biofuels to be eligible for the RPS, RFS, and K-Taxonomy. Such standards must include lifecycle GHG emissions including land-use change, impacts on ecosystems and biodiversity, and other types of environmental degradation. Compliance should not rely on any voluntary certification scheme but verified through public disclosure and monitoring based on the corporate supply chain due diligence obligations and regulations on forest-risk commodities suggested earlier. Only the biofuels meeting these sustainability standards must be recognized as renewable energy.



Only the biofuels proven to reduce GHG emissions with no negative impact on the environment should be recognized as renewable energy.



■ Thermal power plant burning palm oil-based bio-heavy oil in Jeju, S. Korea ©Jeju KFEM

112. Lee, I. (2020), "EU legislation on sustainability criteria for biofuels and its implications", 'Kookmin Law Review', 44(4). <http://doi.org/10.17252/dlr.2020.44.4.004>

113. EP (2022), 'Texts Adopted', P9_TA(2022)0317, https://www.europarl.europa.eu/doceo/document/TA-9-2022-0317_EN.pdf

114. T&E (2021), '10 Years of EU Fuels Policy Increased EU's Reliance on Unsustainable Biofuels', p. 8. <https://www.transportenvironment.org/discover/10-years-of-eu-fuels-policy-increased-eus-reliance-on-unsustainable-biofuels/>

115. MOTIE Public Notice No. 2019-35. '석유대체연료의 품질기준과 검사방법 및 검사수수료에 관한 고시' [별표] 석유대체연료의 품질기준.

4.1.2.2. Exclusion of palm oil from future aviation biofuels

While considered a hard-to-decarbonize industry, international aviation is also called on to respond to the climate crisis. However, net zero programs in aviation tend to depend on carbon offset through emissions trading or converting to sustainable aviation fuel (SAF), a term practically considered a synonym for ‘aviation biofuel.’ The leading initiative is the International Civil Aviation Organization’s (ICAO) Carbon Offsetting and Reduction Scheme for International Aviation (CORSIA)—S. Korea as a member country also plans to replace 50% of the fuels with SAF by 2050.¹¹⁶

Specifically, the MOTIE has proposed to commercialize SAF by 2026 through easing and modifying regulations to attract investment, enhance technical competitiveness, and secure stable supply chains. This plan not only includes institutional and technical support but also 400 billion KRW (300 million USD) worth of preliminary feasibility studies on technology and development over a seven-year period.¹¹⁷ In November 2022, the government launched the ‘eco-friendly biofuel alliance’ with the biofuel and oil refining industries to kickstart the expansion of biofuels.¹¹⁸

However, in addition to the well-known criticism of palm oil-based biofuels, it is unlikely that enough land, production, and economic feasibility are available for crop-based feedstocks to meet the future SAF demand.¹¹⁹ In 2022, the EU passed ReFuelEU, a decarbonization guideline for the shipping and aviation sectors, and excluded high ILUC risk feedstocks—palm oil and soy—from SAF.¹²⁰ The International Air Transport Association (IATA)¹²¹ and airlines^{122, 123, 124} also announced not to use palm oil-originated SAF. It is an undeniable trend that the controversies over palm oil have mostly been culminated in major advanced economies. With the inevitable phase-out of palm oil, these countries are focusing on developing SAF with waste-based materials as an alternative.

On the contrary, it is well known that the S. Korean biofuel industry lacks any management of the environmental and social risks in the supply chain. With the government’s plans to give a rise of a new palm oil market, the country would turn into a leakage market for palm oil even further. If S. Korea were to join the sustainability journey of the rest of the world, the government should first disclose to the public the industry’s palm oil status and ensure its traceability and sustainability to design the appropriate fuel mix, all ahead of promoting new biofuels, such as SAF.



SAF should only be produced with sustainable feedstocks, not palm oil.

116. 구세주 (2020), “국제항공 온실가스 감축·관리체계 도입을 위한 향후 과제”, 「NARS 현안분석」 vol 156. <https://www.nars.go.kr/report/view.do?cmsCode=CM0043&brdSeq=30215> (access date: 2023.3.5)

117. MOTIE (2022), 「친환경 바이오연료 확대방안」, pp. 9–13. http://www.motie.go.kr/motie/ne/presse/press2/bbs/bbsView.do?bbs_seq_n=166158&bbs_cd_n=81

118. MOTIE (2022.11.3), “친환경 바이오연료 활성화 얼라이언스” 발족”, https://www.motie.go.kr/motie/ne/presse/press2/bbs/bbsView.do?bbs_seq_n=166282&bbs_cd_n=81 (access date: 2023.3.5)

119. Merchant, N. (2022), 「Decarbonizing aviation: Challenges and opportunities for emerging fuels」, CATF, pp. 15–20. <https://www.catf.us/resource/decarbonizing-aviation-challenges-and-opportunities-for-emerging-fuels/>

120. EP (2022), 「Texts Adopted」, P9_TA(2022)0297, https://www.europarl.europa.eu/doceo/document/TA-9-2022-0297_EN.html

121. Gil, M. (2019.9.27), “Countering misinformation on sustainable aviation fuels”, Airlines, <https://www.airlines.iata.org/blog/2019/09/countering-misinformation-on-sustainable-aviation-fuels> (access date: 2023.3.4)

122. KLM, “Sustainable Aviation Fuel”, <https://www.klm.com/information/sustainability/sustainable-aviation-fuel> (access date: 2022.12.20)

123. Southwest, “Sustainable Aviation Fuel (SAF)”, <https://www.southwest.com/citizenship/planet/sustainable-aviation-fuels/> (access date: 2022.12.20)

124. T&E (2022.7.6), “Airline and green NGO urge MEPs to exclude palm oil by-products from European aviation”, <https://www.transportenvironment.org/discover/airline-and-green-group-call-on-meps-to-exclude-palm-oil-proposal-for-eu-aviation/> (access date: 2023.3.4)

Korean companies are all in for the ever-expansion of palm oil-based biofuels.

As if trying to widen the gap with the advanced biofuel markets eliminating palm oil, S. Korean conglomerates are keen on expanding their palm oil businesses and developing palm oil-based SAF. On the forefront of this trend is POSCO International, which has established a holding company in Singapore in 2021 to strengthen its palm oil value chain. In 2022, POSCO International signed a joint venture agreement with GS Caltex, an oil company,¹²⁵ and in 2023 decided to invest 200 million USD in palm oil businesses. POSCO International also has a plan to build a palm oil refinery with the capacity of 500,000 metric tons per year in Indonesia, which will go into operation in 2025.¹²⁶ While the company has focused on selling its palm oil in Indonesia until now, it plans to aggressively expand palm oil projects going forward from harvest to refinement and the production of biofuels.

Dansuk, which runs palm oil plantations in Indonesia and produces biofuels in Korea, partnered with LG Chem in 2021 to enlarge their business. They plan to construct a production facility for hydrogenated vegetable oil (HVO), a source of aviation biofuel, by 2024.¹²⁷ Considering the fact that Dansuk already sources palm oil from Indonesia associated with deforestation and human rights violations,¹²⁸ it is possible for the joint venture to use high-risk palm oil and palm derivatives. Neither company adopted either of RSPO or NDPE as their corporate principles—the traceability and sustainability of their palm oil cannot be guaranteed.

Hyundai Oilbank also signed an agreement with Korean Air in 2021 for cooperation in the production and infrastructure-building for aviation biofuels.¹²⁹ They plan to build a biodiesel factory that produces 130,000 metric tons per year by 2023 and produce 500,000 tons of biofuels per year by 2024 through retrofitting additional facilities. Hyundai Oilbank stated that it recognizes the side-effects of utilizing food resources for energy and plans to use non-edible sources such as oil dregs, waste cooking oil, and ‘palm fruits fallen to the ground.’¹³⁰ But this may be an ungrounded promise considering the scale of the factories and the company intentionally locating the plant in Indonesia because it is ‘easier to source the feedstocks.’ It is unclear whether it would strictly exclude edible oil palm from sourcing.

Because the S. Korean industry’s palm oil-based SAF is unlikely to reach the advanced markets, it is bound to end up in emerging economies like Southeast Asia or China and S. Korea where the sustainability standards are close to none. Hyundai Oilbank using palm oil-based materials will be unlikely to meet its objective of tapping into the EU and US; Korean Air, its domestic client, may face subsequent criticism from home and abroad.

125. 허원석 (2022.5.6), “포스코인터내셔널 팜유로 바이오연료 만든다, 주시보 친환경사업 확장”, 「Business Post」, https://www.businesspost.co.kr/BP?command=article_view&num=280095 (access date: 2023.3.5)

126. 홍국기 (2023.1.10), “포스코인터, 인도네시아 칼리만탄섬에 팜유 정제공장 세운다”, 「Yonhap News Agency」, <https://www.yna.co.kr/view/AKR20230110052500003> (access date: 2023.3.5)

127. 김경미 (2021.9.2), “LG화학, 단석산업과 손잡고 국내 첫 바이오 오일 공장 설립”, 「The JoongAng」, <https://www.joongAng.co.kr/article/25003793> (access date: 2023.3.5)

128. Kim, S. et al. (2022), 「Importing Deforestation」, pp. 48–52, 66–67. APIL, SFOC, & KFEM <https://forourclimate.org/sub/data/view.htmlid74>

129. 서종열 (2021.11.9), “[기자수첩] 바이오항공유, 법적 기반부터 마련돼야”, 「Global Economic」, https://news.g-enews.com/ko-kr/news/article/news_all/20221108112632464614fb262fcb_1/article.html?md=20221109104027_U (access date: 2023.3.5)

130. 현대오일뱅크 (2022.5.11), “현대오일뱅크, 차세대 화이트 바이오 사업 추진”, <http://www.oilbank.co.kr/compay/cyber-promotion/communityid/news/view.do?pageIndex=1&detailsKey=500&linkTab=&f=0&q=%EB%B0%94%EC%9D%B4%EC%98%A4> (access date: 2023.3.5)



4.2. Role of the Korean businesses

The primary reason for the private sector's failure to address human rights and environmental issues is that the companies fell short in internalizing such risks in their overall business and management practices. Relying on voluntary certification schemes as an easy means to get good publicity or meeting the bare minimum on regulation compliance clearly have their limits. Departing from the voluntary corporate ESG, the EU's CSDD and EUDR oblige the companies to conduct due diligence over their supply chains. What is underway is a complete overhaul of the levels and scopes of corporate responsibility, as well as the standards for supply chain risk management.

It is the responsibility of companies to conduct human rights and environmental due diligence over their supply chains. Due diligence should not be outsourced to a third-party certification scheme but be organically and seamlessly integrated into business practices. Specifically, the corporation is to conduct a human rights and environment impact assessment, reflect the results in management, and track the performances of the implementation. Companies should provide remedy to those affected from adverse human rights and environmental impacts on the supply chains.



■ Plantation worker in Indonesia ©SFOC

4.2.1. Introduction and implementation of deforestation-free policies

All companies producing or using palm oil should recognize the high human rights and environmental risks embedded in the palm oil supply chain and introduce comprehensive NDPE policies based on due diligence. The NDPE principle should refrain from merely claiming that 'excluding primary forests from development is enough'—it must be applied to a wider scope that covers secondary forests, grasslands, and shrublands, taking reference of the HCV-HCS assessments aimed at minimizing deforestation risks. Palm oil producers should prohibit the development of relatively intact forest areas or biodiversity-rich areas. Companies should also proactively identify and protect peatlands, whose importance is growing in climate change response discussions.

Companies that use palm oil in their products should be able to ensure NDPE throughout the entire supply chain from production to end consumption by establishing business relations with only the suppliers and buyers who also have adopted the NDPE policy. To ensure the best possible traceability for palm oil sustainability, the corporation should particularly focus on the leg of the supply chain leading to the production site where the human rights and environmental risks are the highest. Companies should proactively request their business partners who have not yet introduced the NDPE policy to adopt measures on par with their own standards and terminate transactions in case of failure. Financial and investment agencies should also follow NDPE and selectively provide financial services to businesses and projects meeting such standards.

Companies producing and using palm oil must devise implementation plans specifying the objectives, timelines, implementation details, regular due diligence, and financial resources. Their compliance should be verified through an independent third-party auditing agency. All due processes should be publicly disclosed to all stakeholders, including local communities and end consumers, in a detailed and transparent manner to clear any inquiries.



NDPE should be comprehensive and detailed, and its implementation diligent and transparent.

Every core element of NDPE should be thoroughly and diligently executed.¹³¹

Policy	Group-wide adoption of NDPE
Scope	Cross-commodity inclusion of all high forest-risk products
Implementation plan	Inclusion of achievable plans and proof of achievement
Independent verification of compliance	Publication of independent verification reports with no conflict of interests
Forest footprint disclosure	Disclosure of impacts on forests, peatlands, and IPLCs and monitoring and response systems for ecosystems
FPIC	Verification of FPIC compliance through on-site due diligence
Zero tolerance for violence and intimidation	Zero tolerance for violence, criminalization, and intimidation against land and environment defenders
Robust monitoring and due diligence	All-time monitoring and due diligence without prior notice
Holding bad actors to account	Disclosure of business partners involved in deforestation and human rights violations and termination of business relations



■ Indigenous Papuan crafting with sago palm tree ©SFOC

4.2.2. Protection of the rights of Indigenous Peoples and Local Communities (IPLCs)

Businesses should adopt measures to respect the rights of IPLCs and actively reflect their voices through established communication channels. Core to protecting such rights are the FPIC principles, which are embedded in all business processes, including projects, HCV assessments, and social and environmental impact assessments (SEIA). Particularly, in case palm oil concessions are situated on indigenous lands, the company involved should recognize the existence and rights of the local communities in accordance with international human rights norms including the UNDRIP. The company should also fairly share the proceeds coming from the plantations to those who lost their forests and lands due to development.

Identifying and responding to human rights and environmental harms begin with palm oil operators disclosing their information to the stakeholders. They should provide documents on the acquisition and status of HGU, a crucial piece of information that ensures the owners' rights, FPIC implementation, and further plans. In addition, the companies bear the obligation to disclose the chemicals they use and monitor the changes in nearby waters and soils. Such measures on environmental improvement should reflect the opinions of the local communities.

Companies must explicitly declare the principles of respecting human rights to prevent any oppression against land and environmental defenders in palm oil operations. In case of oppression in the supply chain, the company should immediately respond with zero tolerance measures and provide the victims with remedy procedures with no risk of retaliation. NDPE-adopted companies should transparently disclose to the stakeholders all relevant details, including corrective action, compensation, and measures to prevent future violations.

Companies using palm oil in the supply chain must conduct due diligence on their entire supply chains to identify actual and potential human rights and environmental risks and prepare response measures to thoroughly follow the NDPE principles. Through this process centered around the FPIC policy, the business can ensure the rights of IPLCs are respected equally across all the legs of the midstream and downstream supply chains.



Palm oil producers should respect the FPIC principles; supply chain operators should ensure the sustainability to the entire supply chain



■ Children from near POSCO International's palm oil plantation in Papua, Indonesia ©SFOC



5. Policy recommendations

A. Introduction of supply chain due diligence legislation

The government shall enact legislation obliging corporations to conduct human rights and environmental due diligence throughout their supply chains. The obligation should be expanded to financial and investment institutions not to be directly or indirectly linked to human rights violations and environmental harms. Administrative agencies should be able to take corrective measures against the non-complying entities, and the victims should be able to have access to remedy.

B. Introduction of regulation on forest-risk commodities

The government shall designate high-risk products that contribute to deforestation and forest degradation. Administrative agencies shall end the imports and sales of products from and financial support for businesses failing to demonstrate their supply chain's non-involvement in deforestation. Non-compliant operators shall be subject to corrective actions. It is to be noted that supply chain due diligence as the means of verification cannot be replaced with legality criteria or voluntary certification.

C. Introduction of sustainability criteria for biofuels

The government shall introduce sustainability criteria as a mandatory condition for biofuels to be eligible for the government's renewables support and inclusion in the K-Taxonomy. Sustainability criteria should include but not limited to greenhouse gas emissions savings, loss of biodiversity, and environmental degradation. Feedstocks sourced from deforested areas or associated with human rights violations must be prohibited. Compliance with the criteria is to be verified through supply chain due diligence, not voluntary certification.

D. Suspension of public finance for forest-risk commodities

Government organizations and public financial institutions shall establish human rights and environmental guidelines that set the standards for financial services and investment. In case a candidate is associated with forest-risk commodity supply chain, the business entity shall conduct in advance due diligence per the aforementioned legislation. Only upon confirmation that there are no outstanding issues the support measures should be authorized.

E. Implementation of corporate human rights and environmental due diligence

Corporations shall identify potential and actual adverse impacts occurring throughout their operations and take measures to prevent and mitigate them. Palm oil producers shall protect the ecosystems and respect the rights of the IPLCs. Businesses using palm oil in their supply chains shall use only the palm oil without any social or environmental risk in accordance to their comprehensive and rigorous NDPE policy.



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