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STRATEGIC OPTIONS FOR THE NATIONAL PALM OIL INDUSTRY IN RESPONSE TO THE EUROPEAN UNION DEFORESTATION-FREE REGULATION (EUDR) POLICY

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RESUME

The EUDR policy has the potential to hinder the national palm oil industry from entering the global palm oil market. It is estimated that the majority of the national oil palm plantation players, especially small-to-medium scale oil palm plantations, will find it difficult to meet the demands of the EUDR. The risk of implementing this policy needs to be mitigated and a strategic solution should be sought, considering the extensive linkages between the palm oil industry and various economic sectors in Indonesia. The first strategy is to reorganize and reorient the national palm oil supply chains to match the ability of oil palm plantation players in meeting the sustainability attribute demands of the target market countries/regions. Simultaneously with implementing the first strategy, the Indonesian government together with the world's palm oil producing countries must continue to express a strong protest against the EUDR policy, which is perceived as containing numerous uncertainties, being discriminatory, and representing forms of crop apartheid, new-style protectionism, and modern neo-colonialism.

INTRODUCTION

The European Union Parliament has agreed to adopt a new law, namely the European Union Deforestation-Free Product Regulation (EUDR) on April 19, 2023 (PASPI Monitor, 2022[a,b,c]). The EUDR policy has a deforestation cut-off date of December 31, 2020, where the policy prohibits the entry of all commodities and derivative products associated with deforestation (forest risk commodities) into the European Union market. The initial stage of forest risk commodities in question covers palm oil, soybeans, cattle, cocoa, coffee, wood products and pulp, rubber, and their derivative products.

Commodities/products classified as forest risk commodities planted before December 31, 2020 are required to undergo due diligence and traceability procedures with a methodology set by the EU. In addition to ensuring that it is free from deforestation and forest degradation, due diligence is also aimed at determining risk levels (low risk, standard risk, high risk). The sustainability certificates that have been obtained so far, especially for palm oil such as the RSPO, ISPO, and ISCC, seem to have not convinced the EU as guarantees that the products are free from deforestation and forest degradation.

Regardless of the pros and cons and polemics (PASPI Monitor, 2022[a]), the EUDR policy has a broad impact on the national palm oil industry, considering that Indonesia is the world's largest palm oil producer and the largest supplier of palm oil products to the EU so far. On the one hand, Indonesia

does have to protest against the EUDR policy with a variety of valid arguments, but on the other hand the national palm oil industry also needs to put up a "stance" to respond and get around the demands of the EUDR policy.

This article will discuss the impacts of the EUDR policy on the Indonesian palm oil industry. It will be followed by a discussion on the strategic options for the national palm oil industry in dealing with the EUDR policy.

DEFORESTATION AND EUDR POLICY

Global deforestation, which serves as an argument for the EUDR, is not only happening today, but has also been taking place since the early days of human civilization on planet Earth. In fact, deforestation is a normal phenomenon in the stages of development since the beginning of development (Walker, 1993; Egli, 2001; Bhattarai et al., 2001; Kaplan et al., 2017; Keenan et al., 2015; PASPI Monitor, 2021).

The linkage between global development stages and deforestation has been confirmed with the global deforestation footprint (PASPI, 2023). The development process first took place in sub-tropical regions (such as mainland Europe and North America). Deforestation (in temperate forests) in these sub-tropical regions occurred earlier, before the 1900s (Figure 1). The peak of deforestation in temperate forests occurred in the pre-1700s period. The deforestation that depleted the virgin forests in the United States occurred in the 1600-1900 period (Tchir *et al.*, 2020).

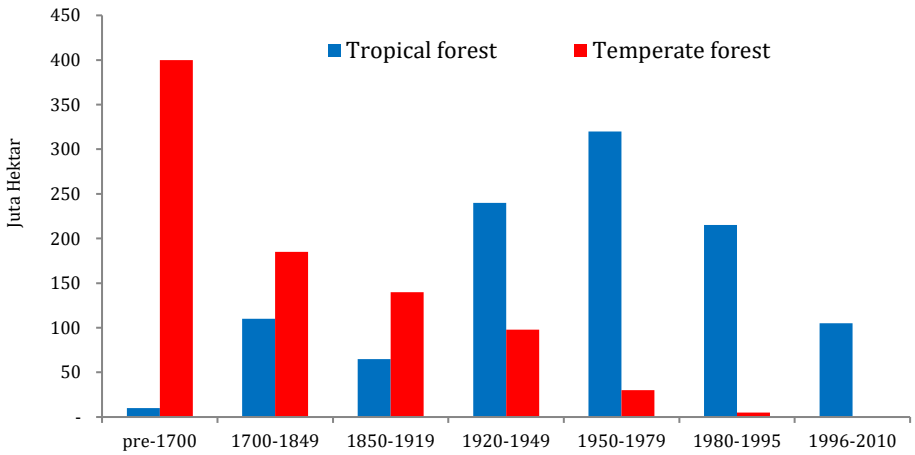

Figure 1. Deforestation Based on Forest Types in the Pre-1700 to 2000 Period (Source: FAO, 2012)

The countries in the tropical regions have only recently begun to develop their economies so tropical forest deforestation has started to occur intensively since the 1900s. The peak of tropical forest deforestation occurred in the 1950-1979 period (FAO, 2012; Roser, 2012).

The deforestation footprint of tropical and non-tropical forests was further reinforced by Matthew's study (1983). In the pre-agriculture period until 1980, global deforestation had reached 701 million hectares, consisting of deforestation in non-tropical forests (653 million hectares) and deforestation in tropical forests (48 million hectares).

Table 1. Changes in World Forests (Deforestation) in the Pre-Agricultural Period to 1980

	Pre-Agriculture Vegetation	1980 Vegetation	Deforestation	
	Million hectares	Million hectares	Million hectares	%
Total world forests	4,628	3,927	701	15.15
Tropical rain forests	1,277	1,229	48	3.75
Non-tropical rain forests	3,351	2,698	653	19.50
Woodland	1,523	1,310	213	13.80
Shrubland	1,299	1,212	87	6.70
Grassland	3,309	2,743	647	19.10
Tundra	734	734	-	-
Desert	1,582	1,557	25	1.60
Cultivation	93	1,756	-1663	-

Source: Matthew (1983)

Most of the deforestation in sub-tropical forests occurred in mainland Europe and North America. This is evident from the decrease in forest cover in European countries before 1800 (Kaplan et al., 2017) and in North America (USDA, 2014). This is also confirmed by the loss of virgin forests in mainland Europe. Studies by Sabatini et al. (2018) and Barredo et al. (2021) revealed that the current remaining area of primary forests in Europe is only 1.4 million hectares, spreading across Finland, Ukraine, Bulgaria and Romania.

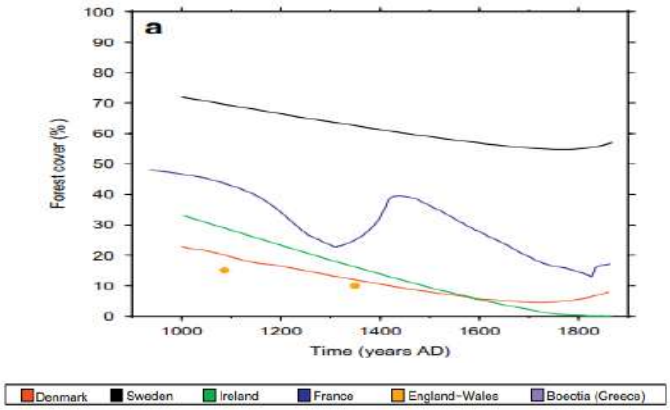

Figure 2. History of Forest Cover Decline in Mainland Europe (Source: Kaplan *et al.*, 2009; PASPI, 2023)

Figure 3. History of Deforestation in Continental United States 1620-1920 (Source: USDA, 2014; PASPI, 2023)

Houghton's study (1996) also confirmed this global deforestation pattern. In the 1850-1990 period, the total global land area that was cleared increased from 289 million hectares to 2.52 billion

hectares, consisting of 1.6 billion hectares of temperate grassland, 508 million hectares of tropical forests, 91 million hectares of temperate forests, and 4 million hectares of boreal forests.

Between 1850 and 1990, the logging volume in boreal and temperate forests increased from 1 million hectares per year to 3.5 million hectares per year. There was also an increase in logging volume in temperate forests, from 3 million hectares per year to 6 million hectares per year. Meanwhile, the logging volume in tropical forests was initially very small, at less than 0.5 million hectares per year in 1850, but then increased to 2 million hectares per year in 1950 and to 8 million hectares per year in 1980. Thus, during this period, over more than 1 million hectares of the world's forests were logged, which is about 77 percent higher than the conversion of forests into agricultural land.

Even now the EU is also indirectly involved in global deforestation through its high consumption that exceeds its domestic agricultural production capability, leading to imports of commodities from various countries (European Commission, 2013). Approximately 19 percent of deforestation in tropical forests occurring in the 2008-2017 period is attributed to the EU consumption (Pendrill et al., 2020).

With the global deforestation footprint, it can be said that almost all the lands worldwide currently used for agricultural, industrial, and residential/urban areas are linked to past deforestation. The current mainland region of EU is also derived from past deforestation. The EU does not need to deny its past by pretending that it has never been related to deforestation and throws accusations and burdens on tropical countries with the EUDR policy.

The EU region is an area that imports a lot of agricultural commodities/products including palm oil from various countries. Based on studies by Kissinger et al. (2012), European Commission (2013), and Pendrill et al. (2020), agricultural commodities/products imported by the EU are often related to deforestation and forest degradation in various exporting countries, which means the EU is actually also involved in carrying out/encouraging (a driver of) deforestation and forest degradation (embodied deforestation).

According to the EU's belief, the impacts of deforestation and forest degradation (negative externalities), which incidentally has also been carried out by the EU in the past, have led to biodiversity loss and carbon emissions that have contributed to global climate change. This condition occurs due to market failure, where the prices of forest-related commodities/products do not reflect these externalities. Additionally, there has been a global regulatory failure in preventing deforestation and degradation of the world's forests. Therefore, correcting these market and regulatory failures through the EUDR is necessary.

The aim of the EUDR (European Commission, 2018; European Commission, 2021; Council of European Union, 2023; European Union, 2023) is to correct market and global regulatory failures so as to minimize the EU consumption of products originating from supply chains associated with deforestation and forest degradation and increase the EU consumption of products that are legal and come from supply chains that are free from deforestation and forest degradation.

Essentially, the EUDR is due diligence procedures related to traceability to ensure that the supply chains of commodities/products are free from deforestation, legality issues, and forest degradation in palm oil producing countries. Broadly speaking, there are three stages of the EUDR: First, data collection and disclosure of the upstream-downstream supply chain of a product/commodity including geolocation (location coordinates) and legality. Second, risk assessment to measure the risk level of the supply chain of the commodity/product related to legality, deforestation and forest degradation, which is then classified into high risk, standard risk and low risk. And Third, risk mitigation of these potential risks and mitigation steps that must be carried out, monitoring and auditing in a professional and scientific-based manner (using experts, DNA testing and digitalization).

The three stages of the EUDR will require significant costs and resources and unimaginable complexity, making it challenging for the Indonesian palm oil industry to comply. These procedures also cover the entire upstream-downstream supply chains, including the downstream industries (oleofood complex, oleochemical complex, bioenergy complex). The refinery industry has to disclose and map the specific CPO mills from which they obtain their CPO, and each CPO mill must also be able to disclose (data, coordinates, legality, etc.) the plantations that supply its FFB, and so on.

Perhaps some large groups have sufficient resources to carry out these procedures. However, the majority of palm oil industry players do not have the ability to carry out these procedures, either due to legality issues or resource constraints. To minimize the risk of inability to comply with these procedures, oil palm plantation groups are expected to isolate their supply chains and focus on their own groups. Smallholder oil palm plantations and oil palm SMEs, most of which still do not have legality, will be threatened and even eliminated from the EUDR supply chain and will experience difficulties in marketing their FFB. The complex and time-consuming due diligence process will require considerable time and resources. The EUDR policy could potentially phase out smallholder farmers from the global palm oil supply chain.

If this happens, it is certain that it will impact broad and complicated socio-economic and security aspects. It will not only affect the palm oil industry, but can extend to all economic sectors, bearing in mind that the economic linkages between the palm oil industry and national economic sectors have been very intensive and extensive (PASPI, 2023).

STRATEGIC OPTIONS

In the face of the risky, uncertain, and complex EUDR policy, the Indonesian government, along with the Indonesian palm oil industry players, needs to develop a strategy to respond to the EUDR policy. Indonesia does not need to exhaust all its energy to meet the demands of the EUDR, which can actually be interpreted as a way for the EU to shift the burden of its past guilt to developing countries as palm oil producers. The government must also protect smallholder oil palm plantations, where millions of people are struggling to escape poverty, from being excluded from the global palm oil supply chain solely to comply with the EUDR which reeks of imperialism.

The reality of the global palm oil market varies in relation to environmental demands, including deforestation and forest degradation. Some countries, such as the EU and the United States, strongly demand action on deforestation and forest degradation. There are also many countries that react moderately, like India, China, and Eurasia region. However, there are a large number of countries that have not given much attention to this issue because they are still struggling to get out of poverty, such as countries in the African region, Bangladesh and Pakistan.

The typology of national oil palm plantations also varies. Some oil palm plantations in Indonesia, especially the big six plantation groups, already have the ability to meet the strict sustainability demands as required by the EUDR. However, most, particularly smallholder oil palm plantations and oil palm SMEs, do not yet have the ability to comply with the demands of the EUDR due to various limitations. And some middle-scale oil palm plantations have a moderate capacity in meeting the environmental demands, like those in the EUDR policy.

Based on the reality of the palm oil market and palm oil plantations, there is a need for reorganization and reorientation of the palm oil supply chains. The management of the national palm oil industry, either at the policy, association, or company level, needs to shift from compartmentalized management to vertically integrated management (upstream-downstream supply chain) to easily meet the demands of the market, which requires traceability and sustainability.

First, the supply chain of oil palm plantation companies (the big six) already has the ability to meet the relatively strict sustainability demands; therefore, the products from this supply chain can be designated to meet the primary target markets such as the EU and the United States. So far, the big six's supply chain has downstream industries in these countries, so it will be easier to access the market with all the attributes demanded by the market.

Second, the supply chain of medium-scale oil palm plantations with moderate capability and upstream-downstream vertical integral consolidation can be designated to meet the moderate target markets such as India, China and the Eurasian region.

Third, the supply chain of smallholder oil palm plantations and small-to-medium scale oil palm plantations with upstream-downstream vertical integral consolidation with the PTPN group can be targeted on the primary markets to fulfill the needs of domestic market and several regions such as Africa, Bangladesh and Pakistan. In this regard, the program to develop smallholder oil palm cooperatives to move downstream, which is currently being carried out by PTPN group, is one of the steps for that. By focusing the supply chain of smallholder and small-to-medium scale oil palm plantations on the domestic market, it also at the same time ensures the fulfillment of domestic needs for palm oil products in order to achieve national food and energy security.

With such reorganization and reorientation of the supply chains, it is hoped that the national palm oil industry can take advantage of the diverse global palm oil markets without disrupting the availability of palm oil products for domestic needs.

Simultaneously with the reorganization and reorientation of the palm oil supply chains, the Indonesian government together with the world's palm oil producing countries (both members and non-members of CPOPC) must continue to express their strong protest against the EUDR policy as a policy that contains numerous uncertainties, discriminatory measures and forms of crop apartheid, new-style protectionism, and even modern neo-colonialism, which has the potential to trigger a global trade war. Indonesia (along with CPOPC) also needs to carry out a policy threat of trade retaliation against EU export products to Indonesia. Protesting the EUDR policy is essential not only as a pressure on the EUDR itself but also to prevent the spread of the EUDR policy to other regions and the domestic population.

CONCLUSION

The EUDR policy has the potential to hinder the national palm oil industry from entering the global palm oil market. It is estimated that the majority of the national palm oil companies will find it difficult to comply with the EUDR demands.

The reality of the global palm oil market varies with regard to demands for environmental sustainability attributes including deforestation and forest degradation from high, moderate and low categories. Likewise, the ability of oil palm plantations to meet the demands of these attributes also varies from high, moderate, and low. This requires reorganization and reorientation of the national palm oil supply chains.

First, the supply chain of palm oil companies (the big six) that already has the ability to meet relatively strict sustainability demands can be designated to meet primary target markets such as the EU and the United States. Second, the supply chain for medium-scale oil palm plantations with moderate capability and upstream-downstream vertical integral consolidation can be targeted to meet moderate target markets such as India, China and the Eurasian region. And **Third**, the supply chain of small-to-medium scale oil palm plantations with the upstream-downstream vertical integral consolidation with the PTPN group can meet the needs of the primary markets of domestic market and several regions such as Africa, Bangladesh and Pakistan.

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REFERENCES

Barredo J, Brailesco C, Teller A, Sabatini FM, Mauri A, Janouskova K. 2021. Mapping and Assessment of Primary and Old-Growth Forests in Europe. European Commision: JRC Science for Policy Report. Available on: http://dx.doi.org/10.2760/797591

Belmaker G. 2018. More Than Half of Europe's Forests Lost Over 6,000 Years. https://news.mongabay.com/2018/01/more-than-half-of-europes-forests-lost-over-6000-years/

Bhattarai M, Haming M. 2001. Institution and The Environmental Kuznet Curve for Deforestation: A Cross Country Analysis for Latin America, Africa and Asia. World Development. 29(6): 995-1010.

Council of European Union. 2022. Draft Regulation of the European Parliament and of the Council on the Making Available on the Union Market as well as Export from the Union of Certain Commodities and Products Associated with Deforestation and Forest Degradation and Repealing Regulation (EU) No 995/2010. General approach

Egli H. 2001. Area Cross Country Study of the Environmental Kuznet Curve Misleading? New evidence from time series data to Germany. Greifswald (DE): Universiteit Greifswald.

European Commission. 2013. The Impact of EU Consumption on Deforestation: Comprehensive Analysis of the Impact of EU Consumption on Deforestation.

European Commision. 2018. Impact Asesment: Minimising Risk if Deforestation and Forest Degradation Asociated of Product Placed on EU Market.

European Commission. 2019. Supplementing Directives 2018/2001 As Regards The Determination of High Indirect Land Use Change Tisk Feedstock for Which A significant Expansion of the production Area Into With High Carbon Stock Is Observed and Certification of Low. Indirect Land Use Change Risk Biofuels, Bioliquids and Biomass Fuels. Brussels

European Commision. 2021. Proposal for a Regulation of The European Parliament and of the Council on the Making Available on the Union Market as well as Export from the Union of Certain Commodities and Products Associated with Deforestation and Forest Degradation and Repealing Regulation (EU) No 995/2010.

European Union 2023. Regulation of The European Parliament and of the Council on the Making Available on the Union Market as well as Export from the Union of Certain Commodities and Products Associated with Deforestation and Forest Degradation and Repealing Regulation (EU) No 995/2010.

[FAO] Food Agricultural Organization. 2007. Manual on Deforestation, Degradation, and Fragmentation Using Remote Sensing and GIS. https://www.fao.org/forestry/18222-045c26b711a976bb9d0d17386ee8f0e37.pdf

[FAO] Food Agricultural Organization. 2012. State of the World Forest. Available on: https://www.fao.org/3/i3010e/i3010e.pdf

[FAO] Food Agricultural Organization. 2018. Terms and Definition: Forest Resources Asesment 2020. https://www.fao.org/3/I8661EN/i8661en.pdf

Houghton RA. 1999. Land Use Change and Teristerial Carbon: The Temporal Record in Forest Ecosystem, Forest Management and the Global Carbon Cycles (ed. MJ Apps & D.T. Price).

Kaplan JO. 2017. Constraining the Deforestation History of Europe: Evaluation of Historical Land Use Scenarios with Pollen-Based Land Cover Reconstructions. Land. 6(4): 1-20. https://doi.org/10.3390/land6040091

Keenan RJ. 2015. Dynamics of Global Forest Area: Results from the FAO Global Forest Resources Assessment 2015. Forest Ecology and Management. 352:9-20.

Kissinger G, M Herold, V De Sy. 2012. Drivers of Deforestation and Forest Degradation: A Synthesis Report for REDD+ Policymakers. Vancouver (CN): Lexeme Consulting. Available on: https://www.forestcarbonpartnership.org/sites/fcp/files/DriversOfDeforestation.pdf_N_S.pdf

Koh LP, Wilcove DS. 2008. Is Oil Palm Agriculture Really Destroying Tropical Biodiversity? Conservation Letters. 1(2): 60–64. https://doi.org/10.1111/j.1755-263X.2008.00011.x

Matthew E. 1983. Global Vegetation and Land Use: New High-Resolution Data Based for Climate Study. Journal of climate change and applied Meteorology. 22:474-487. https://ui.adsabs.harvard.edu/link_gateway/1983JApMe..22..474M/doi:10.1175/1520-0450(1983)022%3C0474:GVALUN%3E2.0.CO;2

McCarty J. 2022. What Is the FOREST Act? Everything to Know About the US Bill to Fight Deforestation [internet]. Available on: https://www.globalcitizen.org

NoMorePlanet.com. (2020). Origins & History of Deforestation. https://nomoreplanet.com/history-of-deforestation/

Panayotou T. 1993. Green Markets: The Economics of Sustainable Development. Cambridge (US): Harvard Institute for International Development.

PASPI Monitor. 2021. Is Deforestation a Normal Phenomenon in the Development Process? Palm Oil Journal Analysis of Palm Oil Strategic Issues. 2(11): 340-344.

PASPI Monitor. 2022a. “Deforestation-Free” Policies and It’s Polemic. Palm Oil Journal Analysis of Palm Oil Strategic Issues. 3 (15): 683-688.

PASPI Monitor. 2022b. Palm Oil in “Deforestation-Free” Countries/Regions. Palm Oil Journal Analysis of Palm Oil Strategic Issues. 3 (16): 689-694.

PASPI Monitor. 2022c. “Deforestation-Free” Policy, Embodied Deforestation and Deforestation Footprints. Palm Oil Journal Analysis of Palm Oil Strategic Issues. 3(17): 695-702.

PASPI. 2023. Mitos dan Fakta Industri Minyak Sawit Indonesia dalam Isu Sosial, Ekonomi, dan Lingkungan Global. Edisi Keempat. Bogor (ID): Palm Oil Agribusiness Strategic Policy Institute.

Pendrill F, Persson UM, Kastner T. 2020. Deforestation risk embodied in production and consumption agricultural and forestry comodites 2005-2017. Environmental Research Letters. 14 (5). https://doi.org/10.1088/1748-9326/ab0d41

Roda JM. 2019. The Geopolitics of Palm Oil and Deforestation. Available on: https://www.thejakartapost.com/academia/2019/07/08/the-geopolitics-of-palm-oil-and-eforestation.html

Rostow WW. 1960. The Stages of Economic Growth: A Non Comunist Manifesto. https://doi.org/10.1017/CBO9780511625824

Sabatini FM, Burrascano S, Keeton WS, Levers C, Lindner M, Pötzschner F, Verkerk PJ, Bauhus J, Buchwald E, Chaskovsky O, Debaive N, Horváth F, Garbarino M, Grigoriadis N Lombardi F, Duarte IM, Meyer P, Midteng N, Mikac S, Mikoláš M, Motta R, Mozgeris G, Nunes L, Panayotov M, Ódor P, Ruete A, Simovski B, Stillhard J, Svoboda M, Szwagrzyk J, Tikkanen OP, Volosyanchuk R, Vrska T, Zlatanov T, Kuemmerle T. 2018. Where are Europe's Last Primary Forest? Diversity and Distributions. 24(10): 1426-1439. https://doi.org/10.1111/ddi.12778

Tchir TL, E Johnson, L Nkemdirim. 2020. Deforestation in North America: Past, Present and Future. Regional Sustainable Development Review: Canada and USA. (1). http://www.eolss.net/Eolss-sampleAllChapter.aspx

[USDA] United States of Departement Agricultural. 2014. US Forest Resource Facts and Historical Trend. Washington DC (US): US Department of Agriculture, Science and Education Administration.

Vancura V. 2020. The History of European Forest Exploitation. https://wilderness-society.org/history-of-european-forest-exploitation

Vijay V, Pimm LS, Jenkins CN, Smith SJ. 2016. The Impacts of Oil Palm on Recent Deforestation and Biodiversity Loss. Plos One. 11(7): 1-19. https://doi.org/10.1371/journal.pone.0159668

Walker. 1993. Deforestation and Economic Development. https://idjs.ca/images/rcsr/archives/V16N3-Walker.pdf

Wicke B, Sikkema R, Dornburg V, Junginger M, Faaij A. 2008. Drivers of Land Use Change and The Role of Palm Oil Production in Indonesia and Malaysia: Overview of Past Developments and Future Projections Final Report. Science, Technology and Society Copernicus Institute for Sustainable Development and Innovation Utrecht University. Available on: http://np-net.pbworks.com/f/Wicke%2C+Faaij+et+al+%282008%29+Palm+oil+and+land+use+change+in+Indonesia+and+Malaysia%2C+Copernicus+Institute.pdf