JURNAL ILMU PEMERINTAHAN:
Kajian Ilmu Pemerintahan dan Politik Daerah
Volume 10– Nomor 2, 2025, (Hlm 164-182)

Available online at: http://e-journal.upstegal.ac.id/index.php/jip

Palm Oil as a Renewable Energy Source: A Study of Indonesia's Strategy In Overcoming Negative Palm Oil Campaigns

Mella Syaftiani[a*], Eko Priyo Purnomo[a], Suchanart Singhapat[c] Moch. Rifqi Mei Redha[a,b], Tiara Khairunnisa[a,b]

[a]*Department of Government Affairs and Administration, Universitas Muhammadiyah Yogyakarta, Indonesia, Daerah Istimewa Yogyakarta 55183, Indonesia*
[b]*E-Governance and Sustainability Institute, Yogyakarta, Indonesia, Yogyakarta 55183, Indonesia*
[c] *Faculty of liberal arts at Kalasin University, Thailand*

Information Article

History Article
Submission : 02-June-2025
Revision : 25-August-2025
Published : 31-December-2025

DOI Article:
https://doi.org/10.24905/jip.10.2.2025.164-182

A B S T R A C T

Palm oil is one of the largest renewable energy sources in Indonesia in terms of export production. Negative campaigns conducted by international organizations and other countries have hampered Indonesia's palm oil exports. This study aims to analyze Indonesia's strategy in overcoming negative campaigns against Indonesian palm oil. This study uses a qualitative approach with secondary data from media related to negative campaigns against Indonesian palm oil. The results show that Indonesia's strategy in overcoming negative campaigns, mainly through the expansion of the Indonesian Sustainable Palm Oil Initiative (ISPO) and the Sustainable Palm Oil Forum, involves international diplomacy and technological innovation in converting palm oil into environmentally friendly renewable energy. The analysis contributes to the conclusion that the government can implement sustainable strategies that constitute diplomatic measures in renewable energy technological innovation. Thus, Indonesia has a great opportunity to support the global energy transition by reducing carbon emissions more effectively.

Key word: *Sustainability; Renewable Energy; Negative Campaign; Palm Oil; Government, Indonesia Cases*

Acknowledgment

1. INTRODUCTION

This study aims to analyse Indonesia's strategy in overcoming the negative campaign against Indonesian palm oil. Data from the Central Statistics Agency (BPS) shows that over the past 20 years, the value of palm oil exports has increased significantly, from US$1.08 billion in 2000 to US$16.3 billion in 2010, and then continued to increase to around US$23 billion in 2020. In fact, in 2024, the value of Indonesian palm oil exports was recorded at US$27.75 billion, equivalent to Rp440 trillion(Muhammad Teguh et al., 2024) The palm oil industry makes a significant contribution to the national GDP and exports, as well as strengthening Indonesia's agriculture and industrialization sectors (Sequiño et al., 2017). In the context of renewable energy, palm oil also has great potential as a feedstock for biofuels, which can support global efforts to reduce dependence on fossil fuels and accelerate the transition to a low-carbon economy. Palm oil as the lowest carbon emitter has great potential, becoming a source of renewable energy, in Indonesia (Kurniawati et al., 2022).

The development of palm oil-based bioenergy, such as biodiesel, is part of an important strategy in efforts to reduce carbon emissions and support the global transition to a low-carbon economy. Palm oil biodiesel, with a carbon footprint of 2281.66 kgCO2/MWh, has 41% lower emissions than fossil fuel-based power plants, making it a potential solution to reduce carbon emissions in Indonesia (Indrawan et al., 2017). However, the rapid development of this industry cannot be separated from serious challenges at the global level, especially related to the negative campaign that accuses palm oil of being the main cause of deforestation, environmental damage, and human rights violations that threaten the reputation and international market access of Indonesian palm oil products.

In addition, negative campaigns regarding Indonesian palm oil are widely encouraged by NGOs (Non-Governmental Organizations) and Western countries, thus influencing the global public perception of Indonesian palm oil. One of the NGOs that has launched a negative campaign about Indonesian palm oil is Greenpeace. The Greenpeace website states that there are around 3.12 million hectares of illegal oil palm plantations in forest areas by the end of 2019 (Meli Antika et al., 2024). In addition, a statement from Greenpeace mentions that more than 600 plantation companies operate in forest areas, including national parks, wildlife sanctuaries, and UNESCO-protected sites, most of which are located on the islands of Sumatra and Borneo (Gaveau et al., 2019).

Negative campaigns not only from NGOs but also from several countries, including the European Union and the United States, have imposed strict policies that limit palm oil imports as a form of environmental sustainability (Beyer et al., 2020). However, some vegetable oil alternatives such, as imported soybeans and rapeseed, have a higher carbon footprint and require more land for production, but do not face the same regulatory pressures. This paradox suggests that the evolving narrative around palm oil is not always in line with scientific data and facts on the ground.

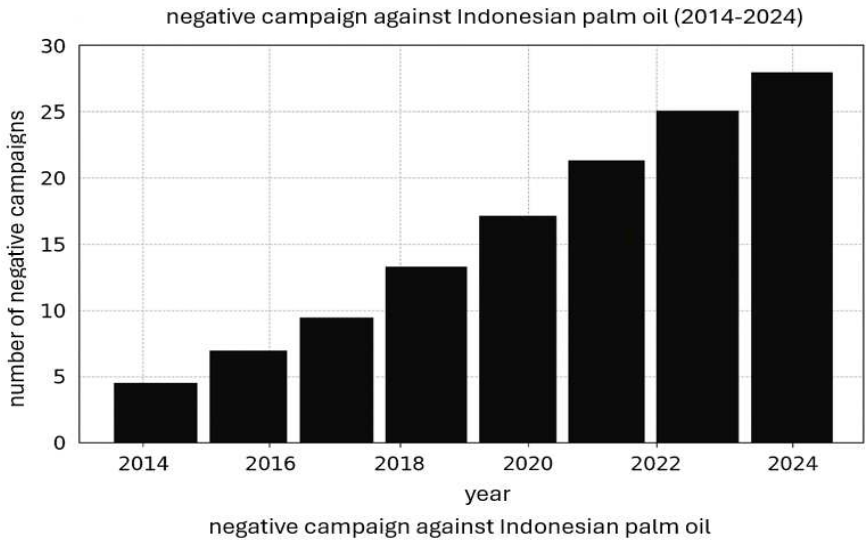

Figure 1. Number of negative campaigns on Indonesian palm oil
Source: data processed by the author

In Figure 1, it can be seen that the number of negative campaigns against Indonesian palm oil has increased significantly from 2014 to 2024 (Antika et al., 2024). In 2014, the number of campaigns was still relatively low (around 5), but the number of campaigns began to increase rapidly in 2019 and 2020, peaking around 2024 with more than 30 campaigns. The peak of the campaign in 2019 and 2020 can be influenced by a variety of factors, including increasingly intensified global campaigns from international organizations, especially those highlighting sustainability issues and the environmental impact posed by the palm oil industry. Despite the decline in the number of campaigns in the following years, the overall trend suggests that Indonesia's palm oil industry still faces major challenges in terms of international image and global market access.

This figure illustrates the importance of Indonesia's appropriate strategies to deal with the pressures of such negative campaigns, such as strengthening the implementation of sustainability standards and improving international diplomacy (Suwarno, 2019). The main strategy that Indonesia must do is to adapt to global sustainability standards such as RSPO (Roundtable on Sustainable Palm Oil) and ISPO (Indonesian Sustainable Palm Oil), as well as increase environmental diplomacy to overcome the negative stigma inherent in Indonesian palm oil products (Pareira, 2023). Indonesia also needs to strengthen economic and environmental diplomacy to overcome the impact of this negative campaign. Economic diplomacy that attaches importance to the environment as a form of supporting environmentally friendly renewable energy. In addition, a strong commitment to sustainability and technological innovation in processing palm oil can be an opportunity for Indonesia towards sustainable green energy.

Therefore, it can be concluded that this study aims to analyse Indonesia's strategy in overcoming negative campaigns carried out by NGOs and IGOs against Indonesian palm oil, especially related to sustainability issues, deforestation, and international trade policies(Putri et al., 2022). One of the main focuses of this research is to explore strategies that Indonesia can take to deal with global pressures, such as promoting palm oil as a more efficient and environmentally friendly renewable energy feedstock and strengthening the implementation of global sustainability standards such as RSPO and ISPO, to maintain access to international markets(Nasution et al., 2024).

This research aims to explore how Indonesia can address the challenges posed by negative campaigns against the palm oil industry, especially those related to sustainability, deforestation, and international trade policy issues. The aim of this study is to analyze how negative narratives around palm oil can be mitigated with strategic efforts, both domestically and internationally. In addition, this research will also investigate strategies that can be adopted by Indonesia to strengthen the role of palm oil as a source of renewable energy, as well as counter misconceptions perpetuated by non-governmental organizations (NGOs) and foreign governments, especially in the European Union and the United States(Hamid & Paramitaningrum, 2023). Therefore, researchers are interested in addressing this issue by formulating the issue into two main focuses: How does the negative campaign against Indonesian palm oil affect the image and access to international trade? What strategies can Indonesia adopt to mitigate the impact of this negative campaign and promote palm oil as a sustainable, renewable energy source?.

Table 1. Troubleshooting Framework

Variable/Aspect	Problem Focus	Indicators of Problem Solving	Strategic/Step for Problem Solving
Image and International Trade Access	How do negative campaigns against Indonesian palm oil affect its image and international trade access?	Impact of the campaign on image barriers to international trade external perspective on oil palm	Obsracles to international trade sustainability issues in the narrative overcoming misunderstandings about palm oil engaging in economic diplomacy actively participating in international forums improving access to the global market
Palm oil as a renewable energy source	What strategies can Indonesia adopt to reduce the impact of negative campaigns and promote palm oil as a renewable energy source?	Renewable energy narrative involvement of key stakeholders	Improving sustainability standards overcoming rejection by NGOs and foreign governments strengthening the role of palm oil as renewable energy encouraging sustainability certification collaborating with industry and civil society promoting best practice in sustainability

Source. Adoption from (Doni et al., 2023) (T A, 2019) (Dhenada & Huda, 2024) (Purnomo et al., 2024)

The theoretical framework used focuses on sustainable development, which includes three main aspects: social, economic, and environmental. Sustainable development prioritizes a balance between economic growth, social justice, and environmental sustainability (Purnomo et al., 2019). These three dimensions are interrelated and important in overcoming the challenges faced by the Indonesian palm oil industry, especially related to negative campaigns that threaten the industry's image(Khor, 2011).

In the social aspect, social justice is the main focus in supporting the development of a fairer palm oil industry. This industry provides opportunities for people in rural areas to get jobs and improve their well-being (Alamsyah et al., 2023). People's well-being can be improved through more stable incomes and access to better facilities, thanks to the income generated from this sector (Dauderstädt, 2015). However, it is important to ensure that all of these benefits can be enjoyed equally without discrimination. In addition, poverty reduction can be achieved by providing better access to smallholder oil palm and supporting them with training and understanding of sustainable agricultural practices (Abas et al., 2022).

In the economic dimension, economic growth is a key factor resulting from the palm oil industry (Khairina et al., 2020). The industry has become an important pillar of Indonesia's economy, generating significant exports and creating jobs. Economic inclusion is also important to ensure that all levels of society, including smallholder oil palm farmers, can participate in this value chain and experience the economic benefits of oil palm (Harisudin et al., 2024). On the other

hand, the reduction of inequality can be achieved by ensuring that the economic benefits of palm oil are enjoyed not only by large companies but also by smallholders and local communities (Barus & Ernah, 2024).

In terms of natural resource management, palm oil as a renewable energy source must be produced in a way that does not damage the environment (Purnomo et al., 2024). Reducing pollution is important so that the palm oil production process does not pollute the environment, by avoiding the use of harmful pesticides and ensuring good waste management (Irawan et al., 2024). In addition, the sustainability of nature must be maintained in ways that avoid deforestation, maintain biodiversity, and minimize negative impacts on ecosystems. Therefore, sustainability certifications such as the RSPO (Roundtable on Sustainable Palm Oil) can be an important step to ensure that palm oil is produced in an environmentally friendly way.

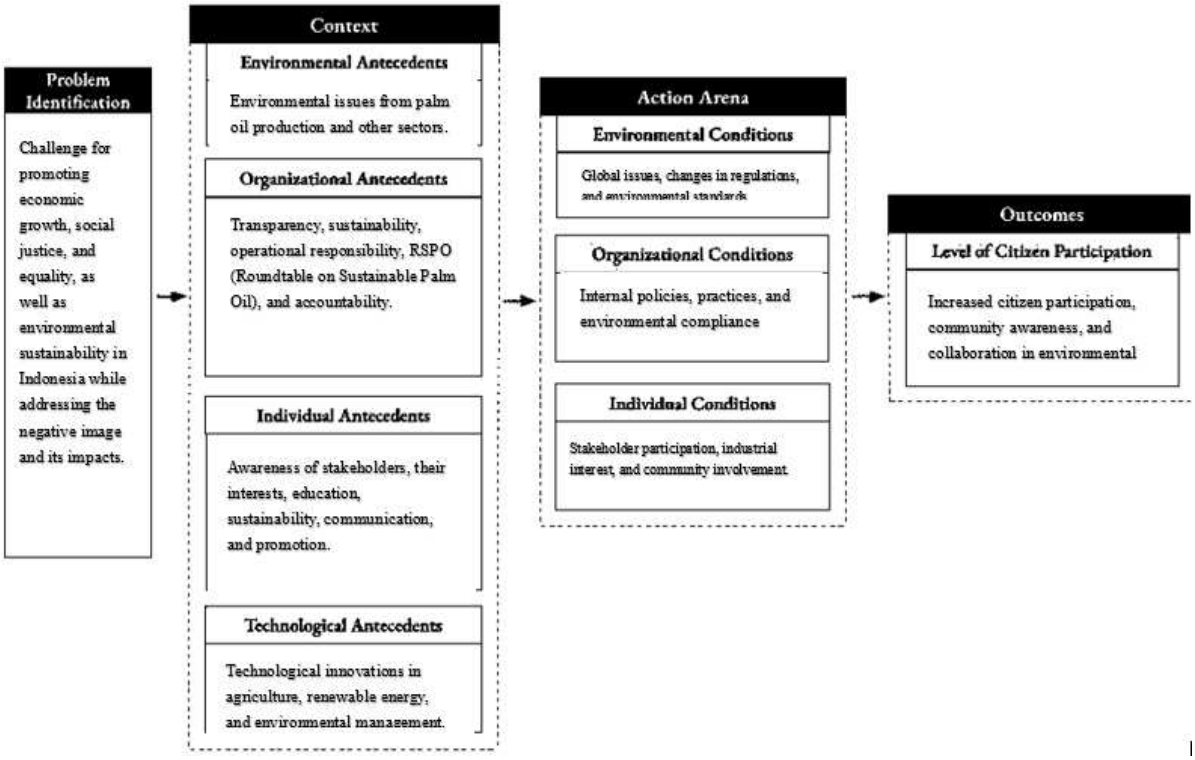

Figure 2. Theoretical Framework

Source. Adoption from (Purnomo et al., 2019) (Harisudin et al., 2024)

2. METHOD

This study will use a descriptive-qualitative approach with analysis using NVivo software and Google Collab (Python) to analyse the impact of negative campaigns on Indonesian palm oil and the country's strategy in dealing with it(Tamano, 2023). This approach was chosen because it allows researchers to dig into the depth of qualitative data through interviews, documents, and relevant media content, to identify themes and patterns that exist in negative narratives about palm oil, and to explore how Indonesia can address the problem(Kinseng et al., 2023).

The main data sources in the study include policy documents, industry reports, scientific articles, as well as negative campaigns published by international organizations and NGOs, such as Greenpeace (Greenpeace, 2021). This secondary data will also include reports related to environmental impacts, sustainability, and international trade policies related to palm oil. Data will also be collected from interviews with industry experts, government officials, as well as representatives of relevant NGOs(Kay Leng et al., 2024). Utilizing NVivo, this study will organize

qualitative data in text form and identify key themes that emerge related to negative campaigns, sustainability issues, and Indonesia's response to these challenges(Darmawan, 2019).

Data analysis using NVivo will involve a coding process to highlight relevant themes in the text data, such as sustainability issues, deforestation, socio-economic impacts, and international policies affecting Indonesia's palm oil(Noordwijk, 2020). Using NVivo, researchers can conduct thematic analyses to identify patterns that emerge from negative campaign narratives, as well as understand how international perceptions of Indonesian palm oil are formed(Candellone et al., 2024). NVivo makes it possible to conduct an in-depth analysis of large texts by mapping the relationships between emerging themes and looking at how social, economic, and environmental factors interact in the context of the palm oil industry(Lusiana et al., 2023).

In addition, Google Collab with Python will be used to perform statistical analysis and quantitative-based data processing, such as sentiment analysis against negative campaigns spread on social media and international news platforms(Nguyen, 2024). Using Python libraries such as NLTK (Natural Language Toolkit) or Text Blob, this study will explore the sentiments that exist in writings and reports about palm oil, whether they are positive, negative, or neutral(T L & S K, 2025). Python can also be used to process data from various online sources, perform statistical analysis to measure the intensity of negative campaigns over time, and provide a clearer picture of how public perception changes over time(Wang, 2022).

Through the use of NVivo and Google Collab (Python), this study aims to provide deeper insights into how negative campaigns against Indonesian palm oil can be understood and addressed with a data-driven approach(Vuylsteke, 2021). By analysing key themes through NVivo and conducting sentiment analysis using Python, this study will provide a comprehensive overview of strategies that can be implemented by Indonesia to improve its international image and strengthen the role of palm oil as a sustainable renewable energy feedstock(Vuylsteke, 2021).

As a final step, the data analysis generated by NVivo and Python will be used to identify strategic policy recommendations that Indonesia can take to improve the image of the palm oil industry(Pratama et al., 2024). This includes strengthening sustainability standards such as RSPO (Roundtable on Sustainable Palm Oil) and ISPO (Indonesian Sustainable Palm Oil), as well as promoting palm oil as an environmentally friendly renewable energy solution(Abdul Majid et al., 2021). By utilizing this advanced analysis tool, it is hoped that this research can produce policies that are more data-based and responsive to the global challenges faced by the Indonesian palm oil industry.

3. FINDINGS AND DISCUSSION

The Role of Palm Oil in Renewable Energy

Palm oil has become a strategic commodity for Indonesia, especially in the production of biodiesel as a renewable energy source(Farobie & Hartulistiyoso, 2022). As the world's largest palm oil producer, Indonesia has significant export capacity to meet global needs. This potential offers great opportunities in increasing the use of renewable energy, in line with the global energy transition that focuses on reducing carbon emissions and achieving Net Zero Emission targets (Burrington, 2024).

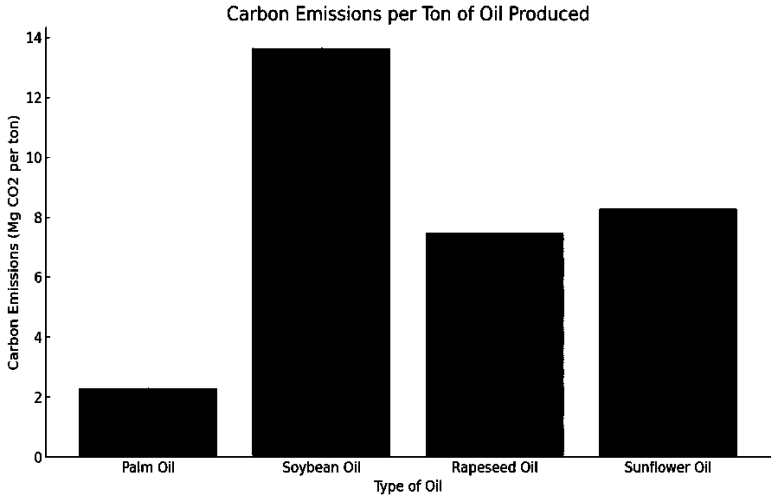

Figure 3. Carbon emission per Ton of Oil Produced
Source : (Chiriacò et al., 2024)

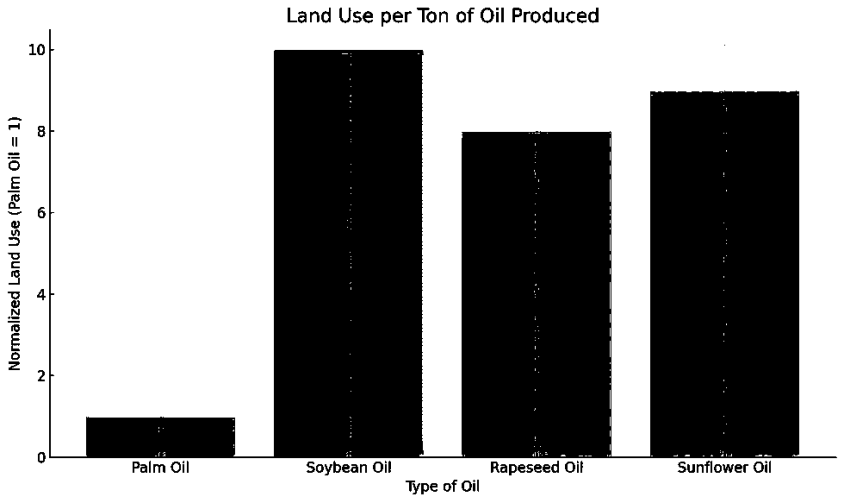

Figure 4. Land Use per Ton of Oil Produced
Source : (Chiriacò et al., 2024)

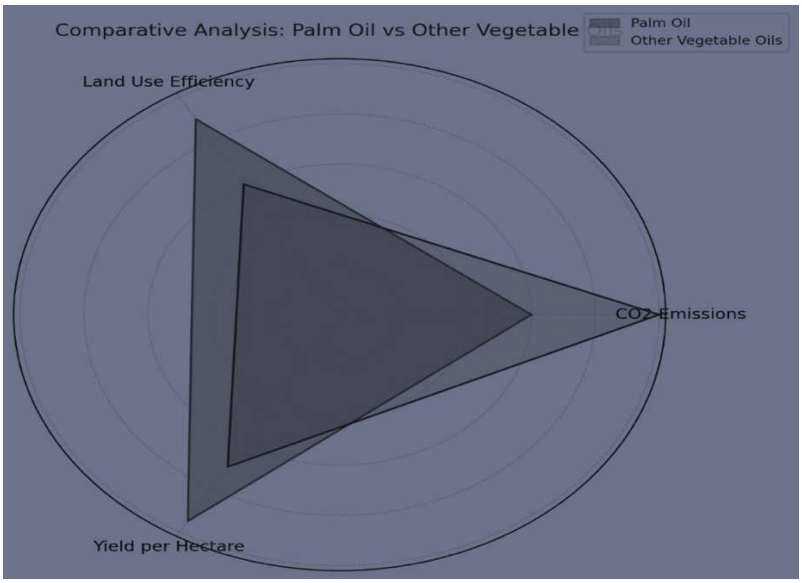

Figure 5. Comperative Analysis
Source :(Kheong et al., 2010)

The data shown in Figure 3 above reveals that palm oil has a much lower level of carbon emissions compared to soybean, rapeseed, and sunflower oil. This makes it a more efficient option in the production of vegetable oils, especially in the context of renewable energy needs. Figure 3 shows that carbon emissions from palm oil production are only about 2.3 Mg CO2 per ton, while soybean oil reaches 13.65 Mg CO2 per ton (Chiriacò et al., 2024).

In addition, palm oil also has advantages in terms of land use**.** **Figure 4** and **Figure 5** shows that palm oil production uses less land than other vegetable oils, with a normalized land scale where palm oil is base 1. In comparison, soybean oil requires 10 times more land, while rapeseed and sunflower require 8 and 9 times more land, respectively(Kheong et al., 2010). This shows that palm oil is able to produce larger amounts of oil with less land use than other vegetable oils, such as soybeans or sunflowers. This advantage is important in the context of sustainable development, as more efficient land use helps reduce pressure on forest land and biodiversity and reduce carbon emissions (Jamil & Asrol, 2024).

Negative campaign against Indonesian Palm Oil

The presence of activists, European parties, and sustainability reflects tensions between global stakeholders, including campaigns from European countries that often link palm oil to environmental issues(Harisudin et al., 2024). Meanwhile, the words plantations, supply, and percent show that this industry has a complex relationship between production, supply chain, and domestic economic contribution(S, 2024). Thus, this study can highlight Indonesia's strategy in responding to these negative campaigns through stricter regulations, promotion of sustainable palm oil, and innovations in developing palm oil as a source of renewable energy(Purwanto et al., 2016). The role of government, global cooperation, and effective communication efforts is key to solving these challenges(Shevchuk, 2023).

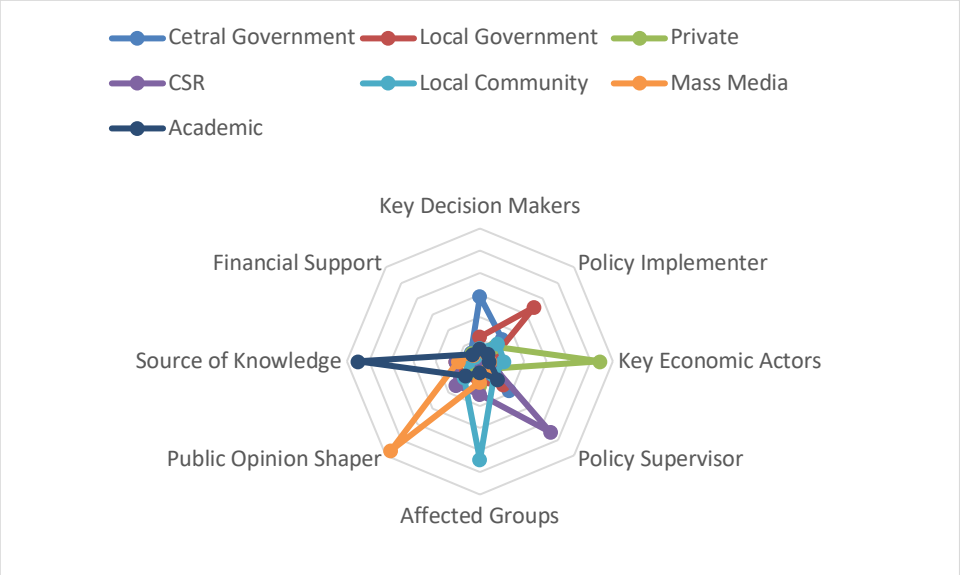

Figure 6. Actors on Negative campaign against Indonesian Palm Oil
Source. Created by the author with Nvivo 12 Plus

Table 2. Actors on Negative campaign against Indonesian Palm Oil

	Key Decision Makers	Policy Implementer	Key Economic Actors	Policy Supervisor	Affected Groups	Public Opinion Shaper	Source of Knowledge	Financial Support
Cetral Government	29.35%	14.22%	6.17%	18.47%	4.71%	11.03%	10.39%	5.66%
Mass Media	5.42%	4.87%	4.53%	5.16%	9.24%	56.92%	9.73%	4.13%
CSR	4.67%	5.31%	4.02%	45.13%	14.79%	15.24%	10.84%	0.00%
Private	4.89%	9.44%	54.33%	4.62%	11.02%	6.11%	4.51%	5.08%
Local Community	6.05%	11.48%	10.92%	9.21%	44.36%	10.13%	4.97%	2.88%
Local Government	11.08%	34.72%	4.63%	14.85%	9.31%	9.62%	10.77%	4.02%
Academic	5.61%	5.02%	4.32%	11.47%	4.91%	9.12%	55.08%	4.47%

Source. Created by the author with Nvivo 12 Plus

Based on data from Figure 6 and Table 2, which classifies actor roles in Indonesia's strategy to counteract negative campaigns against palm oil as a renewable energy source, it was discovered that the central government (29.35%) played the largest role in decision-making (Key Decision Makers), followed by regional governments (11.08%). This shows that policy centralization is still the main pattern in palm oil governance, which is consistent with research by (H. et al., 2022), which shows Indonesian energy policymaking is still very top-down and centralized, especially in the bioenergy industry.

A noteworthy finding is that CSR (Corporate Social Responsibility) actors seem to dominate the policy supervisory function (45.13%) and significantly contribute to the targeting of affected groups (14.79%). This suggests that CSR is starting to play a strategic role in the governance of sustainable palm oil. This backs up (Paoli et al., 2010) that private sector collaborations are crucial to promoting certification programs and openness in the palm oil sector.

The mass media seems to have a significant influence on public opinion (56.92%), which is important for determining how Indonesian palm oil is viewed internationally. This actor,

however, has relatively little influence over the formulation and application of policies. This result is consistent with a study by (Olper & Swinnen, 2009), which claims that although the media is not incorporated into the official policy process, it frequently acts as a battlefield for narratives supporting and opposing palm oil.

Academics account for the majority of knowledge sources (55.08%), highlighting the significance of research findings and scientific contributions in bolstering palm oil diplomacy tactics. Nonetheless, academics' contribution to decision-making is still quite little (5.61%), suggesting a disconnect between the creation of information and its use in policy. (Padfield et al., 2019), who critiqued the inadequate translation of research findings into palm oil governance practices, provides additional support for this finding.

The central government (5.66%) and the private sector (5.08%) provide the most, however financial support is still extremely scarce and dispersed across all actors. This suggests that the government and business partners are still not providing enough financial assistance for the conversion of palm oil into a renewable energy source, and that new, more sustainable, and inclusive incentive programs are needed(Gourich et al., 2023).

The central government's centralized role continues to have a significant impact on the governance of the palm oil industry in Indonesia, especially in terms of financial support and decision-making, according to the analysis of actor classifications of Indonesia's strategies in responding to negative campaigns against palm oil as a renewable energy source(R. et al., 2017). Although it has not been deliberately incorporated into the process of developing or implementing policies, the mass media nevertheless has a significant influence on public opinion(Narkhoz University et al., 2022)

Although they haven't been the best at offering financial support yet, the CSR and private sectors have started to make a significant contribution, especially in keeping an eye on and interacting with impacted groups (T. Velnampy, 2024). Although academics are a major source of information, their influence on policymaking and decision-making has not been fully utilized (Kelly, 2010) . In order to create a sustainable palm oil industry that can handle global challenges like environmental issues and discrimination in international markets, all stakeholders must be equally involved in a collaborative and integrative governance approach, as indicated by the imbalance in roles between actors (Fehmita Mubin, 2019).

Negative campaign challenges

The palm oil industry in Indonesia has faced a major challenge in the form of negative campaigns launched by various international organizations (Brad & Hein, 2023) These campaigns often focus on environmental, social, and sustainability issues. The main allegations made include deforestation, human rights violations, and biodiversity loss, which directly affect the reputation of Indonesian palm oil in the global market (Tamano, 2023)

These allegations refer to the conversion of forests into oil palm plantations, which are thought to contribute to the loss of wildlife habitat, including endangered species such as orangutans and Sumatran tigers (Voigt et al., 2021). According to a report from Trase, about one-third of Indonesia's deforestation (3 million hectares) in the last two decades has been linked to oil palm expansion, despite a significant decline in the rate of deforestation from 2018 to 2020 (Gardner & Rylander, 2022). In addition, data shows that oil palm plantations in Indonesia cover about 6.2 million hectares, and only 12% of Indonesia's land area is used as plantations (Gardner & Rylander, 2022).

Overall, although the palm oil industry has a significant impact on deforestation, Indonesia has also shown a decline in the rate of palm oil-related deforestation in recent years, with 45,000

hectares per year in 2018–2020 (Erwiningsih, 2023). In addition, national policies such as a moratorium on new permits for oil palm land clearing have been implemented to reduce environmental impacts. Research from the World Resources Institute (2020) shows that the rate of deforestation in Indonesia has decreased in recent years (Faculto De Jesus, 2024).

In addition, the European Union's policy on the Renewable Energy Directive II (RED II) in 2021, categorized palm oil-based biodiesel as a fuel with a high risk of indirect land use change (ILUC - Indirect Land Use Change) ("Renewable Energy Directive II Impact on Combating Deforestation in Indonesia," 2022). This means that palm oil-based biodiesel is prohibited from being counted in the European Union's renewable energy targets starting in 2030. Thus, this policy has a considerable impact on Indonesia's palm oil exports. The European Union, which was previously one of the main markets for palm biodiesel, now restricts imports of this fuel on sustainability grounds. Data from the Council of Palm Oil Producing Countries (CPOPC) recorded a decrease in the volume of Indonesia's biodiesel exports to the European Union by up to 15% since this policy began to be implemented (Damanhuri, 2023).

Therefore, the negative campaign about Indonesian palm oil, not only affects the European market but also increases pressure on international companies to avoid using palm oil-based products. In recent years, many multinational companies have announced commitments to use only palm oil that is certified sustainable, as regulated by the Roundtable on Sustainable Palm Oil (RSPO). RSPO certification provides assurance that the palm oil used has been produced with sustainability aspects in mind, which include the protection of forests, workers' rights, and local communities (Wahid et al., 2024). However, these strict standards cannot fully mask the negative perceptions circulating in the global market, thus affecting the competitiveness of the Indonesian palm oil industry in the international market.

Indonesia’s strategy in overcoming challenges

Indonesia, as one of the world's largest palm oil producers, faces various challenges due to negative campaigns that often highlight the environmental and social impacts of the industry. The campaign typically covers issues such as deforestation, biodiversity loss, and human rights violations. However, Indonesia did not stay silent. To maintain the sustainability of the palm oil industry while maintaining its position as a producer of renewable energy, the Indonesian government has developed various strategies that focus on sustainability, international diplomacy, technological innovation, and product diversification. These approaches are expected to not only address the existing challenges but also improve the image of the palm oil industry in the eyes of the international community.

One of the key steps taken by Indonesia is the implementation of ISPO (Indonesian Sustainable Palm Oil) Certification, which aims to ensure that the palm oil industry in Indonesia meets international sustainability standards. This certification emphasizes three main aspects: environmental protection, respect for human rights (HAM), and compliance with applicable laws (Evalia et al., 2024). With ISPO, Indonesia is committed to ensuring that the oil palm produced is not only efficient in land use but also environmentally and socially friendly (Montfaucon et al., 2024)

The tangible evidence of the implementation of ISPO was in 2020, when the Indonesian government updated the ISPO certification system through Presidential Regulation Number 44 of 2020 to increase its credibility in the global market. This update aims to strengthen the competitiveness of Indonesian palm oil products and improve international perceptions that are often influenced by negative issues(Jamaluddin et al., 2023) By the end of 2022, more than 40% of oil palm plantation areas in Indonesia were ISPO certified, indicating that the commitment to

sustainability continues to grow (Hajar et al., 2024). ISPO certification also plays an important role in addressing deforestation allegations, as this system ensures that land use is carried out responsibly and does not damage natural ecosystems.

In addition to ISPO certification, international diplomacy is also an important strategy for Indonesia in dealing with negative campaigns. Through diplomacy, Indonesia seeks to explain the benefits of palm oil as a renewable energy source that is more environmentally friendly compared to other vegetable oils(Pulighe, 2023) This is evidenced by Indonesia's active cooperation with major importing countries such as the European Union, India, and China to affirm the importance of palm oil in the global energy transition.

Indonesia also introduced scientific data showing that palm biodiesel can significantly reduce carbon emissions, making a major contribution to efforts to reduce greenhouse gas emissions worldwide. In addition, economic diplomacy is also an important strategy for Indonesia to respond to this negative campaign (Purnomo et al., 2024). By promoting palm oil as a more efficient and environmentally friendly renewable energy feedstock, Indonesia can turn negative campaign narratives into opportunities in the global transition to green energy (Yuslaini et al., 2024). Palm oil has great potential to contribute to reducing global carbon emissions if produced sustainably and used as a bioenergy fuel (Hamid & Paramitaningrum, 2023).

In addition, tangible evidence of this diplomacy is Indonesia's efforts to sue the European Union's Renewable Energy Directive II (RED II) policy at the World Trade Organization (WTO) session (Fajrul Akbar et al., 2023). The policy restricts the use of palm oil-based biodiesel, and Indonesia seeks to maintain market access to palm oil exports by asserting that palm oil has advantages in terms of land-use efficiency and emission reduction compared to other vegetable oils. Indonesia is also working with member countries of the Council of Palm Oil Producing Countries (CPOPC) to strengthen the position of palm oil as a global strategic commodity (Suling et al., 2023). This cooperation is an important platform to coordinate joint efforts in responding to negative campaigns against palm oil. By combining the power of multilateral diplomacy, Indonesia and other palm oil-producing countries are seeking to change the evolving narrative about palm oil to be more positive and based on scientific evidence and relevant data.

However, behind all these strategies, a critical discourse analysis of the negative palm oil campaign needs to be conducted to understand how the discourse is formed and why these negative campaigns can gain significant traction on the international scene. These campaigns are often driven by specific ideologies and interests, such as efforts to protect the domestic agricultural industry in importing countries, or the interest in diversifying renewable energy sources with products that are considered more "environmentally friendly (Hinkes, 2020). Therefore, it is important to understand how this discourse is constructed through the media, policies, and practices of international trade.

In this discourse, Indonesia needs to take strategic steps to not only defend palm oil as an important commodity but also to build the industry's image as an integral part of climate change solutions. One way that can be done is to more aggressively promote sustainability practices in the palm oil industry, such as the implementation of ISPO (Indonesian Sustainable Palm Oil) certification (Clara et al, 2012). This certification aims to ensure that oil palm is produced with environmental, social, and economic aspects in mind, as well as to reduce negative impacts on forests and biodiversity. This shows that Indonesia has taken proactive steps to respond to criticism of the palm oil industry and improve the industry's image in the eyes of the world.

Indonesia's discursive strategy in the face of the negative campaign of palm oil is not only defending the sector, but also introducing a new narrative that is more based on scientific evidence and data. Indonesia has shown that palm oil can contribute positively to the transition

to renewable energy that is environmentally friendly and has great potential in reducing carbon emissions (H. et al., 2022) International and economic diplomacy is becoming a very important tool in this effort, with the aim of maintaining global market access for palm oil products and changing negative public perceptions of the industry (Limaho et al., 2022).

In addition, this strategy also requires support from all stakeholders in the country, including industry players, governments, and civil society. By creating awareness of the importance of sustainability in palm oil production and involving all parties in efforts to improve product quality and image, Indonesia can strengthen its position as a major player in the sustainable global palm oil industry (Fehmita Mubin, 2019).

Through downstreaming programs, higher added value, and access to domestic and international energy markets, the government's strategy of promoting oil palm as a renewable energy source creates new economic opportunities for the general public, especially for oil palm farmers and the communities surrounding plantations (Syahza & Asmit, 2019).

This could increase local economic independence and prosperity. Through ISPO certification, supply chain transparency, and more stringent environmental restrictions, this plan also promotes improvements in the administration of sustainable palm oil for the government (R. Barus et al., 2024). There are still many obstacles to overcome, though, such as the requirement for stringent regulation to guarantee that the production of bioenergy from oil palm does not worsen socioeconomic inequality, ecosystem harm, or land disputes (Biru, 2024). As a result, these results offer a crucial foundation for developing just, long-lasting, and internationally competitive policies (Hirsch & Shotts, 2015).

Thus, through the analysis of critical discourse on the negative campaign of palm oil and the discursive strategy carried out by Indonesia, if managed sustainably, it is not the main cause of environmental damage, but rather a resource that can make a positive contribution to the global green energy transition(Meixner et al., 2023). Consistent international diplomacy, economics, and sustainability efforts are key to building a positive image of palm oil in the eyes of the world (Padfield et al., 2019).

4. CONCLUSION

Based on the above statement, it can be concluded that Indonesian palm oil has a strategic role in supporting the national economy and global renewable energy needs. With high efficiency in land use and lower carbon emissions than other vegetable oils, palm oil is a more environmentally friendly energy alternative. However, the industry faces significant challenges due to negative campaigns highlighting issues of deforestation, sustainability, and human rights abuses. This campaign often ignores scientific data that shows palm oil's superiority in productivity and environmental impact over its alternatives. Through the implementation of sustainability standards such as RSPO and ISPO as well as technological innovation, Indonesia has a great opportunity to strengthen its position in the international market while still contributing to global efforts to reduce carbon emissions.

In addition, this research shows that strategies that include strengthening sustainability regulations, economic diplomacy, and market diversification can help Indonesia face global pressure on the palm oil industry. Data visualization using google python reinforces the argument that palm oil is superior in terms of land efficiency and carbon footprint, so it has great potential to support the global energy transition to a low-carbon economy. With a commitment to sustainability and the promotion of the image of palm oil as a raw material for renewable energy, Indonesia can turn negative campaign narratives into strategic opportunities in achieving sustainable development at the global level.

REFERENCES

Abas, A., Er, A. C., Tambi, N., & Yusoff, N. H. (2022). A systematic review on sustainable agricultural practices among oil palm farmers. *Outlook on Agriculture*, *51*(2), 155–163. https://doi.org/10.1177/00307270211021875

Abdul Majid, N., Ramli, Z., Md Sum, S., & Awang, A. H. (2021). Sustainable Palm Oil Certification Scheme Frameworks and Impacts: A Systematic Literature Review. *Sustainability*, *13*(6), 3263. https://doi.org/10.3390/su13063263

Alamsyah, Z., Mara, A., Rayesa, N. F., Hamid, E., Yanita, M., Fauzia, G., & Napitupulu, D. M. T. (2023). Oil palm contribution to sdgs achievement: A case study in main oil palm producing provinces in Indonesia. *E3S Web of Conferences*, *373*, 04030. https://doi.org/10.1051/e3sconf/202337304030

Barus, A. B., & Ernah, E. (2024). Peranan Perkebunan Kelapa Sawit Rakyat dalam Mencapai Tujuan Ekonomi Sustainable Development Goals (SDGs) di Indonesia. *Mimbar Agribisnis : Jurnal Pemikiran Masyarakat Ilmiah Berwawasan Agribisnis*, *10*(1), 316. https://doi.org/10.25157/ma.v10i1.11720

Barus, R., Chalil, D., & Wibowo, R. P. (2024). ISPO introduction program for independent smallholders: Initial steps towards mandatory ISPO 2025. *Abdimas: Jurnal Pengabdian Masyarakat Universitas Merdeka Malang*, *9*(2), 373–382. https://doi.org/10.26905/abdimas.v9i2.12657

Beyer, R. M., Durán, A. P., Rademacher, T. T., Martin, P., Tayleur, C., Brooks, S. E., Coomes, D., Donald, P. F., & Sanderson, F. J. (2020). *The environmental impacts of palm oil and its alternatives*. https://doi.org/10.1101/2020.02.16.951301

Biru, M. D. (2024). Energi terbarukan: Analisis kebijakan pemanfaatan biodisel kelapa sawit sebagai bahan bakar nabati nasional di tengah kontroversinya sebagai faktor pendorong deforestasi. *Trend and Future of Agribusiness*, *1*(1), 1–11. https://doi.org/10.61511/tafoa.v1i1.2024.543

Brad, A., & Hein, J. (2023). Towards transnational agrarian conflicts? Global NGOs, transnational agrobusiness and local struggles for land on Sumatra. *New Political Economy*, *28*(3), 452–467. https://doi.org/10.1080/13563467.2022.2138300

Burrington, J. D. (2024). Renewable Energy Technical Potential Performance for Zero Carbon Emissions. *ACS Omega*, *9*(24), 25841–25858. https://doi.org/10.1021/acsomega.4c00273

Candellone, E., Aleta, A., Ferraz De Arruda, H., Meijaard, E., & Moreno, Y. (2024). Characteristics of the vegetable oil debate in social-media and its implications for sustainability. *Communications Earth & Environment*, *5*(1). https://doi.org/10.1038/s43247-024-01545-x

Chiriacò, M. V., Galli, N., Santini, M., & Rulli, M. C. (2024). Deforestation and greenhouse gas emissions could arise when replacing palm oil with other vegetable oils. *Science of The Total Environment*, *914*, 169486. https://doi.org/10.1016/j.scitotenv.2023.169486

Clara et al, B. (2012). *Sustainability standards and certification: Towards sustainable palm oil in Indonesia?*

Damanhuri, A. (2023). Projecting Potential Impact of European Union Deforestation Regulation on Indonesian Palm Oil Industry. *International Journal of Science and Society*, *5*(5), 748–757. https://doi.org/10.54783/ijsoc.v5i5.942

Darmawan, D. H. (2019). Smallholder farmers agency in the face of palm oil "negative campaign." *IOP Conference Series: Earth and Environmental Science*, *336*(1), 012010. https://doi.org/10.1088/1755-1315/336/1/012010

Dauderstädt, M. (2015). Welfare Production and Quality of Life. In W. Glatzer, L. Camfield, V. Møller, & M. Rojas (Eds.), *Global Handbook of Quality of Life* (pp. 413–431). Springer Netherlands. https://doi.org/10.1007/978-94-017-9178-6_17

Dhenada, M. I. M. H., & Huda, M. I. M. (2024). The Sustainability of Palm Oil. *Environmental Management and Sustainable Development*, *13*(1), 79. https://doi.org/10.5296/emsd.v13i1.21757

Doni, D. D., Junaidi, J., & Danial, D. (2023). ALTERNATIVE STUDY ON PROCESSING OIL PALM EMPTY FRUIT BUNCHES AS SUITABLE FUEL AND COMPLYING WITH STANDARDS FOR POWER PLANTS. *Journal of Electrical Engineering, Energy, and Information Technology (J3EIT)*, *11*(3), 170. https://doi.org/10.26418/j3eit.v11i3.69366

Erwiningsih, W. (2023). Analyzing Drivers and Mitigation of Deforestation for Oil Palm Expansion in Indonesia, 2000-2020. *International Journal of Sustainable Development and Planning*, *18*(11), 3657–3664. https://doi.org/10.18280/ijsdp.181132

Evalia, N. A., Teapon, R. R. H., Purba, K. F., Rumkel, N., & Hayati, P. K. D. (2024). The Synergy between SDGs and Indonesian Sustainable Palm Oil in Realising Sustainable Oil Palm Development in South Halmahera, Indonesia. *Environmental Research, Engineering and Management*, *80*(2), 88–99. https://doi.org/10.5755/j01.erem.80.2.34761

Faculto De Jesus, L. F. (2024). Indonesia's Current and Future Efforts to Tackle the Issue of Deforestation. *Budi Luhur Journal of Strategic & Global Studies*, *2*(2), 91–106. https://doi.org/10.36080/jsgs.v2i2.39

Fajrul Akbar, C., Fadri, A., Yuliaza Syawitri, K., & Kirana Putri, J. (2023). Trade dispute over palm oil involving Indonesia, Malaysia, and the EuropeanUnion. *JLAST : Journal of Law and Social Transformation*, *1*(2). https://doi.org/10.62527/jlast.1.2.19

Farobie, O., & Hartulistiyoso, E. (2022). Palm Oil Biodiesel as a Renewable Energy Resource in Indonesia: Current Status and Challenges. *BioEnergy Research*, *15*(1), 93–111. https://doi.org/10.1007/s12155-021-10344-7

Fehmita Mubin, A. K. (2019). Multi Stakeholders Partnership in the Sustainable Indonesian Palm Oil Industry: Study Case Multi Stakeholders Partnership FOKSBI. *Journal of Governance*, *4*(2). https://doi.org/10.31506/jog.v4i2.6333

Gardner, T., & Rylander, Y. (2022, September 15). Indonesia makes progress towards zero palm oil deforestation – but gains in forest protection are fragile. *SEI*.

Gaveau, D. L. A., Locatelli, B., Salim, M. A., Yaen, H., Pacheco, P., & Sheil, D. (2019). Rise and fall of forest loss and industrial plantations in Borneo (2000–2017). *Conservation Letters*, *12*(3), e12622. https://doi.org/10.1111/conl.12622

Gourich, W., Song, C. P., Qua, K. S., & Chan, E.-S. (2023). The potential of palm bioenergy in achieving Malaysia's renewable energy target and climate ambition in line with the Paris Agreement. *Energy for Sustainable Development*, *76*, 101296. https://doi.org/10.1016/j.esd.2023.101296

Greenpeace, I. (2021, oktober). Kegagalan Penyelesaian Sawit Dalam Kawasan Hutan, Bahayakan Keselamatan Manusia dan Planet Bumi. *Greenpeace*.

H., P., M.A., B., & A., D. (2022). *Harnessing Political Economy and Global Green Trade to Increase Indonesia's Palm Oil Sustainability*. Center for International Forestry Research (CIFOR). https://doi.org/10.17528/cifor/008637

Hajar, R. S., Yun, B.-W., & Hwang, H.-S. (2024). ANALYZING THE IMPACT OF INDONESIAN SUSTAINABLE PALM OIL (ISPO) CERTIFICATION AND THE FACTORS THAT INFLUENCE CRUDE PALM OIL (CPO) EXPORTS VOLUME. *International Journal of Social Service and Research*, *4*(10). https://doi.org/10.46799/ijssr.v4i10.1085

Hamid, S. & Paramitaningrum. (2023). Indonesian Economic Diplomacy toward Palm Oil: Indonesia's Respond to the EU Resolution on Palm Oil and Deforestation of Rainforest (2016/2222(INI)). *E3S Web of Conferences*, *388*, 04006. https://doi.org/10.1051/e3sconf/202338804006

Harisudin, M., Sutrisno, J., & Irianto, H. (2024). A Structural Equation Modelling Approach in Assessing the Sustainability of Indonesian Smallholder Oil Palm Farming. *Journal of Ecohumanism*, *3*(4), 3368–3379. https://doi.org/10.62754/joe.v3i4.3854

Hinkes, C. (2020). Adding (bio)fuel to the fire: Discourses on palm oil sustainability in the context of European policy development. *Environment, Development and Sustainability*, *22*(8), 7661–7682. https://doi.org/10.1007/s10668-019-00541-y

Hirsch, A. V., & Shotts, K. W. (2015). Competitive Policy Development. *American Economic Review*, *105*(4), 1646–1664. https://doi.org/10.1257/aer.20130250

Indrawan, N., Thapa, S., Rahman, S. F., Park, J.-H., Park, S.-H., Wijaya, M. E., Gobikrishnan, S., Purwanto, W. W., & Park, D.-H. (2017). Palm biodiesel prospect in the Indonesian power sector. *Environmental Technology & Innovation*, *7*, 110–127. https://doi.org/10.1016/j.eti.2017.01.001

Irawan, I., Purnomo, E. P., Prabawa, W. G., & Hung, C. F. (2024). Renewable Energy Development Through the Utilization of Palm Oil Mill Effluent (POME) in Indonesia. *IOP Conference Series: Earth and Environmental Science*, *1404*(1), 012002. https://doi.org/10.1088/1755-1315/1404/1/012002

Jamaluddin, Faisal, Sari, E., & Jumadiah. (2023). The Urgency of Indonesian Sustainable Palm Oil Certification for Oil Palm Plantation Companies in the State's Economic Growth. *Proceedings of Malikussaleh International Conference on Multidisciplinary Studies (MICoMS)*, *3*, 00070. https://doi.org/10.29103/micoms.v3i.238

Jamil, M., & Asrol, M. (2024). Palm Oil Sustainability: Current and Further Potential Research to Adopt Sustainable Development Goals 2030. *IOP Conference Series: Earth and Environmental Science*, *1324*(1), 012077. https://doi.org/10.1088/1755-1315/1324/1/012077

Kay Leng, S. T., Wai Yan, C., Universiti Kebangsaan Malaysia, Razman Pahri, S.-D., Universiti Kebangsaan Malaysia, Sue Lin, N., Universiti Kebangsaan Malaysia, Choy, E. A., & Universiti Kebangsaan Malaysia. (2024). A SYSTEMATIC LITERATURE REVIEW ON ENVIRONMENTAL ISSUES AND CHALLENGES TOWARDS THE PALM OIL INDUSTRY. *JOURNAL OF SUSTAINABILITY SCIENCE AND MANAGEMENT*, *19*(1), 154–170. https://doi.org/10.46754/jssm.2024.01.013

Kelly, M. J. (2010). Debate: Increasing the impact of academic research on public policy. *Public Money & Management*, *30*(4), 207–208. https://doi.org/10.1080/09540962.2010.492176

Khairina, E., Purnomo, E. P., & Malawnai, A. D. (2020). Sustainable Development Goals: Kebijakan Berwawasan Lingkungan Guna Menjaga Ketahanan Lingkungan Di Kabupaten Bantul Daerah Istimewa Yogyakarta. *Jurnal Ketahanan Nasional*, *26*(2), 155. https://doi.org/10.22146/jkn.52969

Kheong, Y. F., Sundram, K., & Basiron, Y. (2010). Mitigating climate change through oil palm cultivation. *International Journal of Global Warming*, *2*(2), 118. https://doi.org/10.1504/IJGW.2010.033717

Khor, Y. L. (2011). The oil palm industry bows to NGO campaigns. *Lipid Technology*, *23*(5), 102–104. https://doi.org/10.1002/lite.201100106

Kinseng, R. A., Nasdian, F. T., Mardiyaningsih, D. I., Dharmawan, A. H., Hospes, O., Pramudya, E. P., Putri, E. I. K., Amalia, R., Yulian, B. E., & Rahmadian, F. (2023). Unraveling disputes between Indonesia and the European Union on Indonesian palm oil: From environmental issues to national dignity. *Sustainability: Science, Practice and Policy*, *19*(1), 2152626. https://doi.org/10.1080/15487733.2022.2152626

Kurniawati, A. S., Pratiwi, A. I., Ariyani, N. R., Septiani, M., & Sasongko, N. A. (2022). Utilization of palm oil based biofuel to support sustainable energy transition in Indonesia. *IOP Conference Series: Earth and Environmental Science*, *1108*(1), 012038. https://doi.org/10.1088/1755-1315/1108/1/012038

Limaho, H., Pramono, R., & Christiawan, R. (2022). Collaboration between Government and Palm Oil Industry to Achieve Sustainability Development Goals in Indonesia. *Mulawarman Law Review*, 1–16. https://doi.org/10.30872/mulrev.v7i1.757

Lusiana, B., Slingerland, M., Miccolis, A., Khasanah, N., Leimona, B., & Van Noordwijk, M. (2023). Oil palm production, instrumental and relational values: The public relations battle for hearts, heads, and hands along the value chain. *Current Opinion in Environmental Sustainability*, *64*, 101321. https://doi.org/10.1016/j.cosust.2023.101321

Meixner, O., Hackl, S., & Haas, R. (2023). Assessing the Sustainability of Palm Oil by Expert Interviews—An Application of the Analytic Hierarchy Process. *Sustainability*, *15*(24), 16954. https://doi.org/10.3390/su152416954

Meli Antika, Heryadi, R. D., & Sari, D. S. (2024). WTO DALAM KONTROVERSI PERDAGANGAN: PENINJAUAN KASUS BLACK CAMPAIGN UNI EROPA TERHADAP CPO (CRUDE PALM OIL) INDONESIA. *Sriwijaya Journal of International Relations*, *4*(1), 1–16. https://doi.org/10.47753/sjir.v3i1.95

Montfaucon, A. F., Lakatos, C., Agnimaruto, B., & Silberring, J. M. (2024). *Trading Towards Sustainability: The Role of Trade Policies in Indonesia's Green Transformation*. Washington, DC: World Bank. https://doi.org/10.1596/40925

Muhammad Teguh, Marwa, T., Robiani, B., & . M. (2024). Prediction of Indonesian Palm Cooking Oil Exports Based on Competitiveness. *International Journal of Religion*, *5*(10), 4819–4828. https://doi.org/10.61707/df547311

Narkhoz University, G.A., A., & A.B., I. (2022). The place and role of mass media in politics. *Bulletin of the Karaganda University History.Philosophy Series*, *107*(3), 22–34. https://doi.org/10.31489/2022hph3/22-34

Nasution, E. B., Rolliansyah, D. A., Roring, H. A., Rino, M. R., & Lanjari, R. N. W. (2024). Mempromosikan Energi Terbarukan: Diplomasi Lingkungan Indonesia dalam Menanggulangi Perubahan Iklim [Promoting Renewable Energy: Indonesia's Environmental Diplomacy in Tackling Climate Change]. *Verity: Jurnal Ilmiah Hubungan Internasional (International Relations Journal)*, *15*(30), 15–28. https://doi.org/10.19166/verity.v15i30.8171

Nguyen, H.-H. (2024). Enhancing Sentiment Analysis on Social Media Data with Advanced Deep Learning Techniques. *International Journal of Advanced Computer Science and Applications*, *15*(5). https://doi.org/10.14569/ijacsa.2024.0150598

Noordwijk, M. V. (2020). Sustainable Palm Oil: Dissecting a Global Debate. *IOP Conference Series: Earth and Environmental Science*, *418*(1), 012002. https://doi.org/10.1088/1755-1315/418/1/012002

Olper, A., & Swinnen, J. F. M. (2009). Mass Media and Public Policy: Global Evidence from Agricultural Policies. *SSRN Electronic Journal*. https://doi.org/10.2139/ssrn.1360661

Padfield, R., Hansen, S., Davies, Z. G., Ehrensperger, A., Slade, E. M., Evers, S., Papargyropoulou, E., Bessou, C., Abdullah, N., Page, S., Ancrenaz, M., Aplin, P., Dzulkafli, S. B., Barclay, H., Chellaiah, D., Choudhary, S., Conway, S., Cook, S., Copeland, A., … Struebig, M. J. (2019). Co-producing a Research Agenda for Sustainable Palm Oil. *Frontiers in Forests and Global Change*, *2*. https://doi.org/10.3389/ffgc.2019.00013

Paoli, G. D., Yaap, B., Wells, P. L., & Sileuw, A. (2010). CSR, Oil Palm and the RSPO: Translating Boardroom Philosophy into Conservation Action on the Ground. *Tropical Conservation Science*, *3*(4), 438–446. https://doi.org/10.1177/194008291000300408

Pareira, S. (2023). *Achieving Indonesian Palm Oil Farm-to-Table Traceability through ISPO-RSPO Harmonization* (0 ed.). Center for Indonesian Policy Studies. https://doi.org/10.35497/560227

Pratama, K. P. M. P., Sukmawati, C. P., & Abidin, A. Z. (2024). Global Dominance in Crude Palm Oil (CPO): Strategic Factors Shaping Indonesia's Competitive Edge-A Panel Data Approach. *Buletin Ilmiah Litbang Perdagangan*, *18*(2), 141–158. https://doi.org/10.55981/bilp.2024.7205

Pulighe, G. (2023). Navigating the Path to Sustainable Oil Palm Cultivation: Addressing Nexus Challenges and Solutions. *Research on World Agricultural Economy*, *4*(2), 13–17. https://doi.org/10.36956/rwae.v4i2.835

Purnomo, E. P., Khairunisa, T., & Hung, C. F. (2024). Renewable Energy and the Future of a Sustainable Economy in Indonesia. *IOP Conference Series: Earth and Environmental Science*, *1404*(1), 012051. https://doi.org/10.1088/1755-1315/1404/1/012051

Purnomo, E. P., Ramdani, R., Agustiyara, Tomaro, Q. P. V., & Samidjo, G. S. (2019). Land ownership transformation before and after forest fires in Indonesian palm oil plantation arecas. *Journal of Land Use Science*, *14*(1), 37–51. https://doi.org/10.1080/1747423X.2019.1614686

Purwanto, B. A., Hambali, E., Arkeman, Y., & Wijaya, H. (2016). Formulating a Long Term Strategy for Sustainable Palm Oil Biodiesel Development in Indonesia. *Journal of Sustainable Development*, *9*(4), 124. https://doi.org/10.5539/jsd.v9n4p124

Putri, E. I. K., Dharmawan, A. H., Hospes, O., Yulian, B. E., Amalia, R., Mardiyaningsih, D. I., Kinseng, R. A., Tonny, F., Pramudya, E. P., Rahmadian, F., & Suradiredja, D. Y. (2022). The Oil Palm Governance: Challenges of Sustainability Policy in Indonesia. *Sustainability*, *14*(3), 1820. https://doi.org/10.3390/su14031820

R., P., C., R., S., L., P., P., & M., Z. (2017). *A policy network analysis of the palm oil sector in Indonesia: What sustainability to expect?* Center for International Forestry Research (CIFOR). https://doi.org/10.17528/cifor/006528

Renewable Energy Directive II Impact on Combating Deforestation in Indonesia. (2022). *Proceedings of the International Conference on Industrial Engineering and Operations Management*, 3031–3038. https://doi.org/10.46254/AP03.20220510

S, S. (2024). Growth And Economy Of Plantation Sector: Distressed Days, Hopeful Ways (An Analysis Of Crisis In The Plantation Sector And The Policy Approach Of The Government). *International Journal For Multidisciplinary Research*, *6*(6). https://doi.org/10.36948/ijfmr.2024.v06i06.28170

Sequiño, A., Avenido, J., & University of San Jose-Recoletos. (2017). The World's Leader in the Palm Oil Industry: Indonesia. *Recoletos Multidisciplinary Research Journal*, *3*(1), 51–60. https://doi.org/10.32871/rmrj1503.01.04

Shevchuk, R. (2023). GLOBAL CHALLENGES AND INTERNATIONAL COOPERATION IN PUBLIC HEALTH CARE MANAGEMENT. *Electronic Scientific Publication "Public Administration and National Security," 3(33)*. https://doi.org/10.25313/2617-572x-2023-3-9032

Suling, C. F., Purnomo, E. P., Hubacek, K., & Anand, P. (2023). The Influence of "Renewable Energy Directive II" Policy for The Sustainability of Palm Oil Industry in Indonesia. *Journal of Governance*, *8*(3). https://doi.org/10.31506/jog.v8i3.19930

Suwarno, W. (2019). The Challenge of Indonesian Diplomacy Against Palm Oil Discrimination. *Jurnal Ilmiah Hubungan Internasional*, *15*(2), 197–212. https://doi.org/10.26593/jihi.v15i2.3416.197-212

Syahza, A., & Asmit, B. (2019). Regional economic empowerment through oil palm economic institutional development. *Management of Environmental Quality: An International Journal*, *30*(6), 1256–1278. https://doi.org/10.1108/meq-02-2018-0036

T A, J. (2019). LEARNING TO LOVE THE WORLD'S MOST HATED CROP –Review Articles. *Journal of Oil Palm Research*. https://doi.org/10.21894/jopr.2019.0046

T L, V., & S K, G. (2025). *Analyzing User Sentiments: A Python- Based Approach*. MDPI AG. https://doi.org/10.20944/preprints202501.0114.v1

T. Velnampy. (2024). Corporate Social Responsibility and Stakeholder Engagement: Impact on Organizational Performance. *Journal of Advanced Management Studies*, *1*(3), 23–26. https://doi.org/10.36676/jams.v1.i3.15

Tamano, M. A. (2023). Indonesian Palm Oil Industry: Environment Risk, Indigenous Peoples, and National Interest. *Law and Humanities Quarterly Reviews*, *2*(4). https://doi.org/10.31014/aior.1996.02.04.93

Voigt, M., Kühl, H. S., Ancrenaz, M., Gaveau, D., Meijaard, E., Santika, T., Sherman, J., Wich, S. A., Wolf, F., Struebig, M. J., Pereira, H. M., & Rosa, I. M. D. (2021). *Deforestation projections imply range-wide population decline for critically endangered Bornean orangutan*. https://doi.org/10.1101/2021.07.16.451448

Vuylsteke, B. (2021). *Qualitative analysis through coding the work dynamics, used tools, materials, barriers, and enablers* [Dataset]. Zenodo. https://doi.org/10.5281/ZENODO.10495484

Wahid, W. W. C., Subkhi, S., Swastika, A. B., Ramatia, D., Setiawati, N., & Aprillia, K. (2024). Improving Indonesia's Palm Oil Sustainability Through Financing: A Study on Disconnects and Potential Policy Solutions. *Indonesian Journal of International Law*, *21*(5). https://doi.org/10.17304/ijil.vol21.5.1880

Wang, Y.-Y. (2022). Python Code and Illustrative Crisis Management Data from Twitter. *Journal of Information Systems*, *36*(3), 211–217. https://doi.org/10.2308/isys-2022-011

Yuslaini, N., Andriyus, A., Febriyanti, D., & Wicaksono, A. (2024). Sustainable Palm Oil Investment Climate in Indonesia: Foreign and Domestic Promotion by the Local Government. *Journal of Contemporary Governance and Public Policy*, *5*(1), 71–86. https://doi.org/10.46507/jcgpp.v5i1.266

AUTHOR PROFILE

Mella Syaftiani is an academic and researcher at the Jusuf Kalla School of Government (JKSG), Muhammadiyah University Yogyakarta, a higher education institution that focuses on the development of governance, public leadership, and value-based public policy. In her role at JKSG, Mella Syaftiani is known for her active involvement in education, research, and the development of public policy discourse oriented towards strengthening institutional capacity and the quality of democracy.

Eko Priyo Purnomo is an academic and researcher who plays an important role in the development of studies on e-governance, public policy, and sustainable development in Indonesia. He is known as one of the key figures at the E-Governance and Sustainability Institute (ESI) based in Yogyakarta, a scientific research and development institution that focuses on the integration of digital governance with the principles of sustainability.

Suchanart Singhapat is an academic and lecturer affiliated with the Faculty of Liberal Arts, Kalasin University, Thailand. In his capacity as a lecturer and researcher in the humanities and social sciences, Suchanart Singhapat plays an active role in the development of studies in language, communication, education, and socio-cultural studies, which are the main focus of the Faculty of Liberal Arts at Kalasin University.

Moch. Rifqi Mei Redha is an academic affiliated with the Department of Government Affairs and Administration, Muhammadiyah University Yogyakarta (UMY), Indonesia. He is known as a lecturer and researcher in the field of government science and public administration, with a focus on studies related to governance, public policy, and institutional dynamics and state administration at the national and local levels.

Tiara Khirunnisa is an academic and researcher affiliated with the Department of Government Affairs and Administration, Jusuf Kalla School of Government (JKSG), Muhammadiyah University Yogyakarta (UMY), Indonesia. She is active in the development of public administration and governance studies, focusing on issues of governance, public policy, and the dynamics of state administration in local and national contexts. As part of JKSG UMY an institution known for its strength in governance and policy studies Tiara Khirunnisa contributes to the three pillars of higher education, particularly in the fields of education and research, emphasizing analytical, critical, and evidence-based approaches.