Conflict management of smallholders palm oil plantation: Sustainable business perspective

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Abstract. The palm oil sector development can be a driven factor for conflict in some areas. Smallholders are significant stakeholders that affect the palm oil sector's condition and development, including conflict conditions and management. Therefore, conflict management of smallholders palm oil is considered necessary to sustainable business. This paper has investigated the conflict management concept of smallholder palm oil plantation using a sustainable business perspective. Most of the conflict between the company and smallholders happens due to obscure land ownership and negative externalities. However, to prevent the conflict's border impact, the company should have an appropriate method to manage their conflict. Even though the local community does not use violence during the conflict against the company, conflicts may still negatively affect the trust and legitimacy of local communities toward companies. Therefore, we argue that socialization and mediation approaches are successful methods for conflict management. We also argue that integrating social and environmental issues into the core strategies of the company's decision-making process is necessary because conflict is one of the factors used to make sound business and investment decision-making. This study found that conflict management can likely encourage business investment in the company and reduce the company's operational risks and costs.

1. Introduction
Palm oil (Elaeis guineensis) is one of the leading tropical vegetable oils due to the increasing demand, policies regarding palm oil, and the auspicious economic benefits from palm oil. Oil palm plantations have tremendous potential as an excellent source of income for the next 20 years. As one of the largest palm oil-producing countries globally since 2008, Indonesia offers favorable soil, climate, and land conditions to develop oil palm plantations with extensive land and abundant workers [1]. The impact of oil palm plantations in Indonesia has brought smallholders into middle-class economic society. The palm oil sector is also identified as the industry that absorbs the most workforce, encourages GDP growth, and poverty alleviation [2]. Plantation ownership has a significant positive impact on local smallholders, as indicated by the increased welfare index, increasing purchasing power [3].

The area of oil palm plantations in Indonesia is growing every year. The total plantation area in Indonesia in 2018 was 14.3 million hectares [4]. The history of oil palm on the island of Sumatra begins with the spread of oil palm in forests that displace rubber plantations. In the early 1980s, oil palm entered Jambi province through a transmigration program that aimed to reduce population pressure on Java by moving volunteers to less populated islands such as Sumatra and developing food crop production in the outer islands. As in other provinces, the history of oil palm production in Jambi
is marked by the emergence of the Nucleus Estate and Smallholder (NES) scheme [5]. Through this program, a company's definition as a 'nucleus' was born that partners with farmers ('plasma') to manage land. The plasma farmers come from local farmers or transmigrants from the islands of Java and Bali. Under this scheme, farmers transfer part of their land to oil palm companies to establish plantations. Under the program, each family head hands over 10 ha of land to the company, and in return, they will get 2 hectares of agricultural land for each head of the family. After four years, their oil palm plantations are ready to be harvested. However, they can also entrust the land to be managed by the company or want to manage it themselves. The company also provides technical assistance. In this cooperation scheme, plasma farmers agree to sell their products to companies at a government's price. Smallholders are also allowed to sell their land to the company, and they will be compensated for the lost opportunity to use the land themselves [6]. Smallholders start cultivating oil palm through financial and technical support for their inclusion in smallholder plasma areas and are contracted to supply their harvest to company mills [5].

![Figure 1. Production of Indonesian Oil Palm by Category of Producers in Jambi in 2018 (tons) [4].](image)

Oil palm production in Jambi increased significantly until 2018. It reached 85,020 tons from government plantations, 576,327 tons from private plantations, and 1,375,453 tons from smallholder plantations [4]. Now, smallholders have dominated production in the province. They account for 68% of palm oil production compared to 32% by companies. Not only realizing the benefits that oil palm provides, the people who switch to cultivation are also encouraged by other farmers' experiences and the welfare of life that the farmers who cultivate oil palm first.

Besides the increasing economic growth, the development of oil palm plantations can also trigger conflicts between local communities and companies, such as land conflicts that ignore local communities' de facto land. The government often considers residents to be illegal settlers and excludes them because they do not have formal evidence to prove their land claims. Besides, overlapping permits and the land's unclear status on the same land between plantation companies exacerbated the dispute [7]. Jambi is an example of a very dynamic conflict arena in which the boundaries between local and global are unclear. Conflicts and land disputes are increasingly occurring. Walhi Jambi revealed that in 2018 there were 43 agrarian conflicts, including conflicts on monocultures, forests, oil palm plantations, and others [8]. The intensity of conflict is increasing due to the increasing number of parties involved, such as communities, NGOs (non-governmental organizations), companies, and government agencies [9].

The company promised several benefits to the surrounding community, such as job offers, incentives, and funds to build plantations, public access, and a royalty scheme from a harvest after acquiring state land [10]. However, things like this often lead to conflict because of broken promises or injustice in sharing benefits. In the plasma plantation system, there are also many conflicts, such as the company not taking care of the plasma plantations, the lack of transparency about the maintenance
costs, and its distribution of the plasma plantations. If done correctly, the oil palm business will generate profits for local communities. However, several case studies also show people involved in the palm oil industry who experience adverse conditions due to regulations that do not take their side. They can fall into poverty, lose their land and their livelihoods. This business can also cause social conflict, labor exploitation, and damage to ecosystems [11].

Labor social conflicts, in the end, can affect the working mechanism of the palm oil processing factory by not smoothly depositing farmers' products to the company [12]. The accumulation of cases that occurs will impact high economic and social costs. These costs include lost plantation operating income and employee work time allocated to resolve the conflict. Conflict also causes indirect losses due to the risk of recurring or worsening conflicts, losses from a deteriorating business reputation, and the risk of violence against property and people [13]. The NES scheme, in this case, also failed to increase the income and welfare of farmers. The plasma core program in the development of oil palm plantations requires the seriousness of both the smallholders as plasma who receive assistance in developing their business and the nucleus of large or medium enterprises that have developed small businesses as long-term business partners.

Several investigations into oil palm are being conducted in Jambi, but these investigations have been limited to describing and analyzing conflicts between indigenous peoples and oil palm companies [7,9]. The research was conducted in the village of Rukam, Jambi. The village of Rukam has changed significantly since the arrival of the oil palm company. It did not take long for the company to take control of the customary land of the village of Rukam. The majority of residents are forced to sell their land because they are under economic pressure. The investment in oil palm plantations, which is perceived as a big hope by the Jambi Government, is expected to boost economic growth however, in fact, it still raises several problems, both in the context of social, land conflicts, and environmental destruction. Thus, we argue that developing sustainable oil palm plantations is very important for local communities' sustainable economic growth by paying attention to economic, social, and environmental balance. Oil palm plantations provide many positive benefits and impacts on the local communities. However, this business can also lead to social conflicts between smallholders and companies, which must be resolved in order to avoid harm toward smallholders and companies. Furthermore, the conflicts that occur also affect the overall business in the regions. This paper investigates the conflict management concept of smallholder palm oil plantation by considering economic, socio-political, and environmental aspects applying a sustainable business perspective.

2. Method
This research approach is qualitative. The qualitative method is a research procedure that produces descriptive data in written or spoken words from people and observed behavior [14]. The data sources in this research are primary data sources and secondary data sources. Primary data is data obtained from the first source, either from individuals or individuals, such as the results of interviews or the results of filling out questionnaires that are usually carried out by researchers [14].

The research data gained by conducted literature reviews and in-depth interviews. Data for conflict of smallholders is obtained from an in-depth interview process with village head Rukam, Jambi. Rukam Village is located in Taman Rajo District, Muaro Jambi Regency, Jambi Province. The interview process was conducted in November 2019. Interviews are conducted at the village head's office with the face-to-face process. The results of in-depth interviews were recorded and converted into the form of verbatim transcripts. Before the interview was conducted, the interviewer introduced the in-depth interviews' objectives and informed the interviewer that this interview is confidential and not disseminated without the interviewees' permission. Afterward, based on the in-depth interview results, the author collected secondary data to triangulate data. The secondary data collection method is often called the method of using document material [14]. In this case, the researcher does not directly collect the data by himself but examines and uses the data or documents produced by BPS statistics Indonesia, Ministry of Agriculture Indonesia, journal literature, and working reports.
3. Results and discussion

3.1. Smallholders & conflict
Smallholders in Jambi own about 68% of the total oil palm plantation land in Jambi. Therefore, due to the amount of land they are dominating in Jambi, the management of smallholders' conflicts becomes very important. The emergence of conflict presumably will disrupt peace and order in a conflicting area or area that will ultimately negatively impact the environment, economic, and social condition of the region. Besides, conflict can hinder social and economic development in an area due to movement restriction and unstable conditions [15]. Social and non-conducive environments caused by conflict ultimately interfere with the positive achievement of economic, social, and environmental economic activity [16]. Based on the literature, the total direct cost due to the conflict between the company and the local community is around $211 - $367 hectare/year [13]. The more massive and more prolonged the conflict happens, the companies will bear higher direct operational costs. Even though in our study area, we found that most local communities with a conflict with the company do not use violence during the conflict, they still do not trust the company. Therefore, they then put passive action on the company or government action to resolve the conflict. That community action will create an indirect impact, such as a reputation. In this context, the conflict can ultimately jeopardize the company's business processes and the sustainability of existing management. Consequently, business in conflicting areas will ultimately impact the income, expenditures, and proceeds of the smallholder's plantations because the conflict will directly and indirectly negatively impact the area's operational condition.

Each stakeholder influences and is an essential economic factor in the palm oil business [17]. From our interview results, we found that if stakeholders are not satisfied with the company's reputation and the area's social condition, this situation will negatively impact the business's sustainability in that area. This can be perceived from our research results that local smallholders take different actions toward different companies that apply a different approach in managing conflicts. The local smallholders are more cooperative towards PT Y that used a mediation and socialization approach than PT X, which used a legal approach to resolve the conflict. PT Y's conflict management was more successful and gave expected results in a short time compared with the conflict management applied by PT X. That conflict management approach will ultimately have a broad impact on existing businesses. Receiving adverse influences from the company's environment will negatively impact the company's operational processes to meet the company's consumer commitments. The relationship between the company and the local community plays a vital role in economic strength and competitiveness, especially in sectors with resource-based industrial businesses such as palm oil. The lack of social acceptance of prolonged conflict resulted in limited corporate access to extensive land and local communities [15]. From protests to sabotage, local opposition can lead to delays in product distribution and process or even halt production. Production delays will result in increased problems to meet customer demand in the supply chain [18].

As local communities, smallholders are valuable assets that will have a long-term impact on business decisions and development [19]. Besides, the support of the organization and each stakeholder is an important economic factor of business sustainability, as the dissatisfaction of the stakeholders in the company's business operations will have an impact on the company's reputation, which ultimately harms the sustainability of the company's business [16]. Reputation will have a direct and potentially broad impact on the competitiveness of the company. The company's reputation will facilitate its access to financial, social, and human resources [18].

3.2. Management of conflict & business sustainability
Based on the interview results, two causes spur conflict in smallholder plantations in Jambi: land ownership and conflicts caused by negative externalities. The land ownership conflict happened
between individuals or communities against the company or government. Usually, it caused by the company has a legal document to used the land, but actually, the local community has been used that land since the old generation. The conflict caused by negative externalities usually happens between the company and local smallholder, caused by the production process's environmental impact. However, land ownership conflicts are becoming an issue of more concern because of the impact that smallholders feel directly. Conflicts caused by negative externalities will come to the surface when third parties provide information or knowledge about the smallholders' impact. However, conflict management between companies and smallholders remains to prevent conflicts from occurring and on a large scale. Land ownership conflicts can occur on smallholders' estates against governments and companies. Smallholders do not have land ownership in legal papers. This situation will impact the legal power of smallholders when companies try to resolve the conflict through the legal approach. Therefore, other types of conflict management, which are non-legal approaches, can be considered more efficient in resolving the conflict. For instance, the company that uses the socialization and mediation approached is more successful in managing or resolve the conflict. The conflict management method used by the company will impact the conflict resolution period. Then, it will become an obstacle to business development.

Conflicts resolutions, conflict, and periods of conflict resolution will affect the value of legitimacy, credibility, and trust in the business economy, including palm oil businesses [13,20]. In financial calculation, the reputation lost will make the company should be paying the cost of around $400,000 - $500,000 [13]. The palm oil business is one of the sectors that carry high reputational risk. The level of legitimacy, credibility, and trust that the local community gives to the company's business will positively affect the business [20]. In turn, it will have substantial overall financial implications for the company and the location of economic activity due to operational disruptions. The integration of social and environmental issues into the core strategy of the company's decision-making process can result in valuable intangible resources and capabilities. For instance, building a reputation, increasing its attractiveness as an employer, and strengthening customer loyalty [21]. Thus, the longer the period of conflict occurs, and the less efficient the conflicts management is applied, these will result in a low level of legitimacy, credibility, and trust in the company and the existing regions. A further consequence is that the conflict itself will likely disrupt and reduce the company's capabilities and business development in the region. Besides, the company needs to pay a higher economic and social cost for that loss of reputation that implicated the profits lost, which in the end will affect their investment in the affected area.

Optimal investment decisions can only be made when economic, social, and environmental consequences are considered. These criteria consider the impact of operational initiatives on social and institutional relationships, trust networks, reciprocity, community-specific support, and characteristics that can directly influence stakeholder participation to make investment decisions [22]. One strategy to increase the value of foreign investment in social terms is the process of managing conflicts. Conflict management will impact sustainable peace that can ultimately help avoid or mitigate the environmental, economic, and social impacts arising from destructive expressions of conflict [16]. The management of conflict will help the sustainability of the business caused by social conflict. That is one of the media where environmental and social risks can be translated into costs for businesses, which can have implications to the finances as business risk [23]. Reducing business risk makes the company's business sustainable because business sustainability is an essential component of business planning and management cycles across the organization. A comprehensive conflict management approach will also create positive value for social assessment in managing investment in one region. Social assessment is one of the criteria considered by investment stakeholders in their long-term investments [24]. Therefore, conflict management in smallholders can encourage business investment and business continuity [25].

4. Conclusion
Conducive social relations in one region will have a positive impact on the company's business operations. Even the local community does not use violence during the conflict with the company, but conflict still negatively affects the local community's trust. Improved social relations resulting from the conflict management process can foster local community trust toward the company, enhancing its reputation. In our study, most of the conflict happens due to uncleared land ownership and negative externalities. However, to prevent the conflict's adverse impacts, the company should develop a practical and comprehensive approach to managing or resolving it. The local smallholders themselves tend to take different actions to different companies, depend on different methods to manage the conflict that is applied by the companies. Our study found that the company uses the socialization and mediation approach to manage or resolve the conflict more successfully rather than using a legal approach. We also conclude that integrating social and environmental issues into the core strategy of the company's decision-making process can prevent the loss of profit, business, and reputation of the company. This strategic approach will ultimately encourage company's investment in one region and business sustainability. Besides, an efficient and comprehensive conflict management approach can increase the company’s business investment and reduce its business risks. Therefore, we consider that conflict management that primarily addresses the conflict between palm oil plantation and smallholders is essential to achieve sustainable business.

Acknowledgements
This research is funded by Program Penelitian Dasar Ungguan Perguruan Tinggi (PDUPT) Kementerian Riset dan Teknologi/Badan Riset dan Inovasi Nasional (KEMENRISTEK/BRIN)-Universitas Indonesia with contract number 8/E1/KP.PTNBH/2020 and 255/PKS/R/UI/2020.

References
[1] Euler M, Krishna V, Schwarze S, Siregar H and Qaim M 2017 Oil Palm Adoption, Household Welfare, and Nutrition Among Smallholder Farmers in Indonesia World Dev. 93 219–35
[2] Santika T, Wilson K A, Budiharta S, Law E A, Poh T M, Ancrenaz M, Struwig M J and Meijaard E 2019 Does oil palm agriculture help alleviate poverty? A multidimensional counterfactual assessment of oil palm development in Indonesia World Dev. 120 105–17
[3] Raharja S, Marimun, Machfiud, Papilo P, Safriyana, Massijaya M Y, Asrol M and Darmawan M A 2020 Institutional strengthening model of oil palm independent smallholder in Riau and Jambi Provinces, Indonesia Heliyon 6 e03875
[4] Direktorat Jenderal Perkebunan 2019 Statistik Perkebunan Indonesia Komoditas Kelapa Sawit 2017-2019 (Jakarta: Direktorat Jenderal Perkebunan)
[5] Baudoin A, Bose P and Levang P 2017 Review of the diversity of palm oil production systems in Indonesia (Bogor, Indonesia: CIFOR)
[6] Rist L, Feintrenie L and Levang P 2010 The livelihood impacts of oil palm: Smallholders in Indonesia Biodivers. Conserv. 19 1009–24
[7] Dhaialhaq A, McCarthy J F and Yasmi Y 2018 Resolving industrial plantation conflicts in Indonesia: Can mediation deliver? For. Policy Econ. 91 64–72
[8] WALHI Jambi 2019 Catatan Akhir Tahun WALHI Jambi “ POTRET PENGELOLAAN SUMBER DAYA ALAM DI PROVINSI JAMBI TAHUN 2018 ” WALHI
[9] Beckert B, Ditrich C and Adiwibowo S 2014 Contested Land: An Analysis of Multi-Layered Conflicts in Jambi ASEAS – Austrian J. of South-East Asian Stud. 7 75–92
[10] Prabowo D, Maryudi A, Senawi and Imron M A 2017 Conversion of forests into oil palm plantations in West Kalimantan, Indonesia: Insights from actors’ power and its dynamics For. Policy Econ. 78 32–9
[11] Colchester M, Jiwan N, Sirait M, Firdaus A Y, Surambo A and Pane H 2006 Promised Land : Palm Oil and Land Acquisition in Indonesia - Implications for Local Communities (Bogor: Peoples HuMA and the World Agroforestry Centre)
[12] Chotim E E 1996 Disharmoni Inti-Plasma Dalam Pola PIR: Kasus PIR Pangan pada Agroindustri Nanas Subang vol 53 (Bandung)
[13] Barreiro V, Iqbal M, Limberg G, Prasodjo R, Sileuw A, Schweithelm J 2016 The Cost of Conflict in Oil Palm in Indonesia Daemeter Consulting
[14] Moleong, Lexy J 2010 Metodologi Penelitian Kualitatif (Bandung : Remaja Rosdakarya)
[15] Pasaribu S I, Vanclay F and Zhao Y 2020 Challenges to implementing socially-sustainable community development in oil palm and forestry operations in Indonesia Land 9
[16] Bond C J 2014 Positive peace and sustainability in the mining context: Beyond the triple bottom line J. Clean. Prod. 84 164–7.
[17] Svensson G and Wagner B 2015 Implementing and managing economic, social and environmental efforts of business sustainability propositions for measurement and structural models Manag. Environ. Qual. An Int. J. 26 195–213
[18] Hamann R 2003 Mining companies’ role in sustainable development: The “why” and “how” of corporate social responsibility from a business perspective Dev. South. Afr. 20 237–54
[19] Esteves A M and Vanclay F 2009 Social Development Needs Analysis as a tool for SIA to guide corporate-community investment: Applications in the minerals Environ. Impact Assess. Rev. 29 137–45
[20] Jijelava D and Vanclay F 2017 Legitimacy, credibility and trust as the key components of a social licence to operate: An analysis of BP’s projects in Georgia J.Clean. Prod.140 1077–86
[21] Gao J and Bansal P 2013 Instrumental and Integrative Logics in Business Sustainability J. Bus. Ethics 112 241–55
[22] Labuschagne C, Brent A C and van Erck R P G 2005 Assessing the sustainability performances of industries J. Clean. Prod. 13 373–85
[23] Franks D M, Davis R, Bebbington A J, Ali S H, Kemp D and Scurrah M 2014 Conflict translates environmental and social risk into business costs Proc. Nat. Acad. Sci. U. S. A. 111 7576–81
[24] Esteves A M, Franks D and Vanclay F 2012 Social impact assessment: The state of the art Impact Assess. Proj. Apprais. 30 34–42
[25] Afkarina, Indah K I, Wardana, S, and Damayanti P 2019 Coal Mining Sector Contribution to Environmental Conditions and Human Development Index in East Kalimantan Province. Journal of Environmental Science and Sustainable Development, vol. 2, no. 2. https://doi.org/10.7454/jessd.v2i2.1025