



Social and environmental changes due to PT Medco Papua's activities in West Papua

AGUSTINUS MANDACAN¹, RULLY NOVIE WURARAH^{1*} , MICHAEL BARANSANO¹ 

¹ Economics Department, University of Papua, Indonesia

*Correspondence: r.wurarah@unipa.ac.id

Received Date: 22 January, 2024

Accepted Date: 31 Januari, 2024

ABSTRACT

The activities of the company PT Medco Papua Hijau Selaras Capitol Group utilizing the potential of natural resources in producing products have contributed to changing the socio-economic and socio-ecological structure. This research was conducted in Sidey SP-9 District near the PT Medco Papua Hijau Selaras Capitol Group company location area, Manokwari Regency, West Papua Province, which lasted \pm 3 months from June to August 2021. The purpose of this study is to determine the impact of the presence of PT Medco Papua Hijau Selaras Capitol Group on the socio-economic and socio-ecological aspects of the Sidey District community of Manokwari Regency. The research used descriptive qualitative and quantitative methods with case study techniques. The results showed that the community's income was above 6 - 10 million, with the most occupation level being company employees. Of the 56 respondents, 40 men and 16 women have the perspective that the presence of the company has an impact on reducing air and water quality. The effects are increased dust, vehicle fumes, factory fumes, and changes in river watercolor and social behavior. Almost 89.28% of respondents responded that air quality decreased, and 65.52% responded that water quality decreased and also changed social behavior. Then, for the Evaluation of the Implementation of Corporate Social Responsibility (CSR), which is carried out only in the supply of electrical energy, participatory planning about customary areas, education skills, and the local economy still needs to be implemented.

KEYWORDS: community perspective; palm oil company; socio-ecology; socio-economy

1. Introduction

Manokwari Regency is one of 7 regencies in West Papua Province with an area of 3,168.28 km², and the capital of West Papua Province is Manokwari Regency (BPS Papua Barat, 2023). Manokwari Regency has a population of 192,123 people, with a male population percentage of 99,418 people and a female population percentage of 92,075 people in 2020. The economic growth rate of Manokwari Regency is the lowest of the Provincial average, indicating that the local government needs to make many efforts to encourage the growth of each sector to promote regional economic development by increasing regional economic growth with productivity and added value of industries and main regional activities (BPS, 2021).

The activities of companies utilizing the potential of natural resources in producing products have contributed to environmental pollution (Budimanta, et.al., 2007). Soemartono (2011) and Sumarsono (2003) state that the impact caused by industrial growth that is not anticipated by adequate waste disposal sites can be minimized so as not to prevent the adverse effects. Sidey District of Manokwari Regency, West Papua, is an area

Cite This Article:

Mandacan, A., Wurarah, R. N., & Baransano, M. (2024). Social and environmental changes due to PT Medco Papua's activities in West Papua. *Economic Military and Geographically Business Review*, 1(2), 31-53. <https://doi.org/10.61511/emagrap.v1i2.2024.412>

Copyright: © 2024 by the authors. Submitted for possible open access publication under the terms and conditions of the Creative Commons Attribution (CC BY) license (<https://creativecommons.org/licenses/by/4.0/>).



that has agricultural potential (Department of Industry, 1986). Industrial activities in the farm sector have changed the socio-economic and socio-ecological structure (Gibson, et.al., 1987). The various changes in socio-economic and ecological factors require assessing the impact of agricultural activities (Sulton, 2011).

PT Medco Papua Hijau Selaras (Capitol Group) is expected to provide a multiplier effect in moving the wheels of development in Manokwari Regency, specifically around the company's operations. Direct contributions that are usually felt from the presence of PT Medco Papua Hijau Selaras Capitol Group include the availability of crude oil that is ready to be supplied to Surabaya, Bandung, and Makassar to be produced into cooking oil, soap, and cosmetics, which will then be distributed to all regions in Indonesia. In addition, the company's presence is expected to increase employment, open new business fields, increase regional income and make efforts to empower local communities living around the factory's operational area (Suharto, 2009).

However, the opening of PT Medco Papua Hijau Selaras (Capitol Group) did not necessarily benefit all parties, especially the residents around the company. Another impact that is also felt by the community around the factory, whose village is directly adjacent to the company, is the conversion of agricultural land used by the community to grow vegetables, inland fisheries, hunting grounds, and firewood collection.

2. Methods

This research was conducted in Sidey Kubapaten Manokwari District, West Papua Province. This research took approximately three months, from June to August 2021. This research was conducted in Sidey District SP-9, the location of the PT Medco Papua Hijau Selaras Capitol Group company area. In this study, the data used consists of primary and secondary data. Primary data collection was carried out using the interview method by directly asking several research questions to respondents based on a list of questions made for research data purposes.

Questionnaires were prepared in advance based on research indicators/variables to see the community's socio-economic and socio-ecological conditions and determine the impact on the surrounding environment. In addition, the field observation method was also carried out to support the information obtained through interviews. Secondary data is obtained by reviewing literature documentation related to the research conducted, for example, reports, books, environmental impact analysis (EIA) documents for the construction of PT Medco Papua Hijau Selaras Capitol Group, and other sources that are references and can support the author's research.

The methods used in this research are descriptive qualitative and quantitative methods with case study techniques. The descriptive method is used to develop the local community's social and company conditions and the surrounding environment (Dumairy, 1999). The case of this research is the people in Sidey District who are affected or benefit directly from the presence of PT Medco Papua Hijau Selaras Capitol Group on Socio-Economic and Socio-Ecology of Sidey District, Manokwari Regency, West Papua Province.

3. Result and Discussion

General Description of Manokwari Regency

Manokwari, the capital of West Papua Province, spreads over an area of approximately 3,168.28 square kilometers (see Figure 1). According to the latest data from the Central Statistics Agency (BPS) of Manokwari Regency in 2021, the region was inhabited by around 192,633 people in 2020, with a population density of 61 per square kilometer. Geographically, Manokwari is located in the northern part of Papua Island, specifically in the area known as the "Bird's Head" of the island.



Figure 1. Manokwari regency map

Description of PT Medco Capitol Group

PT Medcopapua Hijau Selaras (The Capitol Group) is a company engaged in, and its activities include Plantation and Palm Oil Processing. It is in West Papua Province, Manokwari Regency, Sidey District, Sidey Jaya SP IX Village. Production of oil palm plantations began in 2007, while the processing plant began production in 2015. According to the newly published Verification Document report from the Manokwari District Environmental Office, PT Medcopapua Hijau Selaras (The Capitol Group), the total land area is 13,850 Ha. Consisting of land with HGU status of 6,320.433 Ha (19 Certificates)), land that is not HGU (IUP) of $\pm 7,529.5967$ Ha, and Palm Oil Plantation (PKS) of ± 50 Ha. The mill has a capacity of 45 tons FFB/hour (40 tons FFB/hour) and produces the final product as Crude Palm Oil (CPO). The area of PT Medcopapua Hijau's nucleus plantation or palm oil development is $\pm 6,419.12$ Ha, and the Plasma Plantation is $\pm 2,769.37$ Ha. After the issuance of the permit in 2007, Palm Oil Plantation operations in Manokwari Regency began a year later.

Until 2016, there was a transition from Medco Group to The Capitol Group. The Manokwari District Government does not accept document verifiers from The Capitol Group. The total land permit area is 31,665.00 Ha, and Crop Realization reached 16,543.43 Ha in 2019, according to other documents obtained from the West Papua Provincial Government. Total Production up to 2019 reached 167,638,402 kg of Fresh Fruit Bunches (FFB), 37,266,827 kg of Crude Palm Oil (CPO), and 6,588,848 kg of Palm Kernel (PK).

Respondent's Identity

Respondents in this study include gender, age, education, number of dependents, occupation, and income, as well as socio-economic variables consisting of items: conflict and competition, employment opportunities, changes in livelihoods, and changes in income (Simanjutak, 2001). While socio-ecological variables include air quality, water quantity and quality and public health while welfare variables are measured using income approaches, consumption activities, education and health, electronic goods and two and 4-wheeled vehicles owned (Azwir, 2006).

The instrument in this study is a questionnaire distributed directly to the respondents of the HRD manager, PT Medco employees, and village residents who border the Medco company in my I, II, and Wariki villages, which are the places in this study. The questionnaire was distributed from April 3 - May 3, 2021. The number of questionnaires distributed in this study amounted to 56 out of 56, and 56 questionnaires were received

back. The profile of respondents who participated in this research is shown in the Table 1 below.

Table1. Distribution of respondents by gender

Type of Gender	Amount	Ratio (%)
Male	40	68.97
Female	16	31.03
Total	56	100.00

Distribution of Respondents by Gender

According to Juditha (2015), Gender is an artificial sex constructed by the developing culture and customs of the local community. Meanwhile, according to Hungu (2016), gender is the difference between women and men biologically from the person born. The biological differences and functions of women and men cannot be exchanged, and their functions remain with women and men who exist on earth.

Impact of Company Activities on Socio-Ecology

Significant changes in water structure can result in changes in natural fortifications that people feel in three villages adjacent to the Medco company, including Meyof I village, Meyof II village, and Wariki village. Activities carried out by the company both in the factory and in the development area affect the state and condition of the surrounding natural environment, which impacts the community. Good or bad environmental conditions and quality can affect the nature of the individual itself (Safitri, et.al., 2011). Socio-ecological changes are felt in the form of air pollution and the development of disease seeds or disruption of health, changes in the structure and extent of community land, and changes and disruption of the water source cycle (Azwir, 2006).

Based on the respondents' assessment of air quality before and after the presence of PT Medco conducting production activities, the perception of the community or respondents interviewed 50 people, or 89.28%, answered that air quality decreased after the company operated. This means there is an increase in air pollution in the environment where they live directly adjacent to the company, while six people, or 10.71% of respondents, answered that the air quality did not decrease. So, it is dominated by respondents who think air quality has reduced after the company operates.

Generally, pollution is felt most by respondents who live in Meyof I and Meyof II villages because their residence is ± 200 meters and Wariki village is ± 500 meters from the company area. The impact felt by respondents related to changes in air quality is the increase in dust, vehicle fumes, and factory fumes. Most community assessors stated that there is dust during hot weather and smoke plumes after production activities so that rain occurs. This condition is especially felt during the day. Water use for daily community activities in the study location comes from several sources, including rivers, well water, clean water tanks sourced from springs, and rainwater (Azwir, 2006). Details of the proportion of water use from each source can be seen in the Figure 2 below.

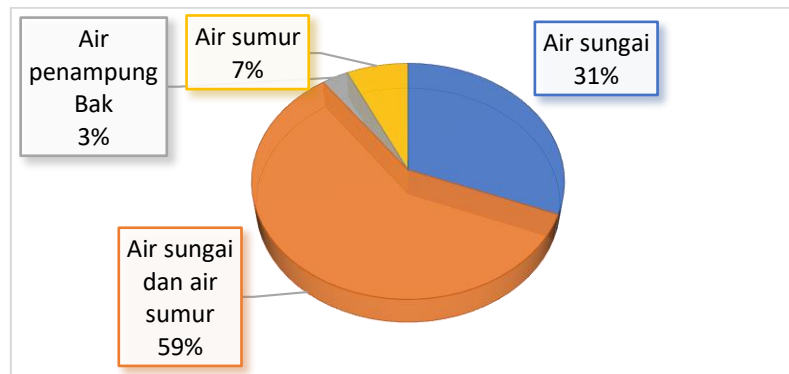


Figure 2. Water sources used by the community

The figure 2 above, shows that most of the 59% of the community carry out daily activities for bathing, cooking, and latrines (MCK) using water sourced from healthy water and river water, 31% of respondents utilize water sources from rivers to fulfill their daily needs, 7% of respondents use well water, and the remaining 3% use large reservoirs of water which are then channeled to residents' homes. In communities that live close to the river, the role of the river is enormous, where river water is used for MCK (bathing, washing clothes, and kitchen utensils/eating and defecating). In contrast, people living some distance from the river utilize the wells around them as a drinking and cooking water source. As for MCK (washing, bathing, and defecating), the community prefers to go to the river.

Furthermore, 3% of respondents utilize water sourced from clean water reservoirs that flow into the village, namely in Meyof II village. In addition to existing water sources, all respondents and communities in the three villages above also utilize healthy water for daily activities, explicitly drinking and cooking water (Suharto, 2009). One aspect of assessing the impact of the company's presence on the ecological ratio of the community is also related to the quantity and quality of water used from existing sources in the location of the respondent's place. The quantity and quality of water were measured by responding to the amount and quality that increased/improved, remained unchanged, and decreased/declined. The results of responses to water quantity and quality are shown in the figure 3.

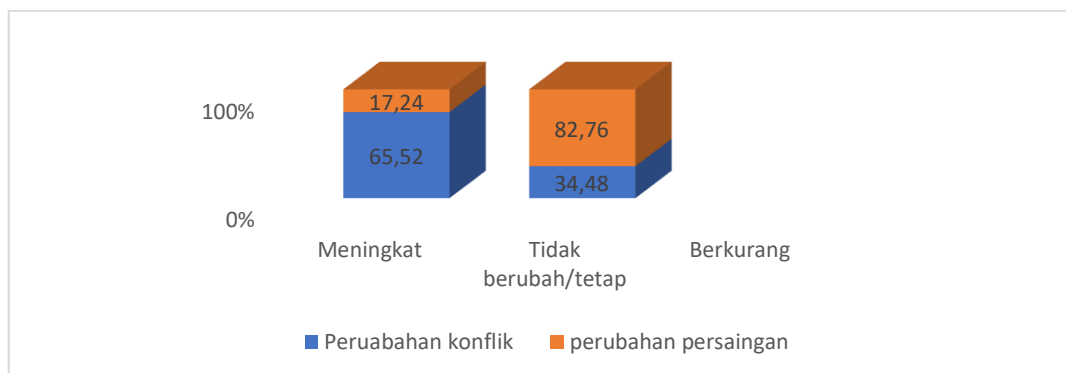


Figure 3. Images of conflict and competition change

The figure 3 above, shows that 34.48% of respondents said no conflict was felt at the time of the factory. This is because disputes only arise from within the community itself and not as a result of the presence of the factory (Fuad & Maskanah, 2000). Meanwhile, 65.52% of respondents said there was an increase in conflict in the community after the company's presence, including related to opportunities to enter the company, which must use the kinship system. In addition, the increase in conflict was caused by the rise in people

getting drunk during a payday and other conflicts felt by the community around the factory (Parimita et al., 2018).

Most 82.76% of respondents considered that the company's presence did not impact increasing competition. The level of competition in this study is in terms of entry into the factory, competition in the business of kiosk entrepreneurs, and competition in the sale of vegetables. This is because respondents think that God has arranged everyone's fortune. At the same time, 17.24% of respondents stated that a change in the competition was generally related to the opportunity to enter to work for the company.

4. Conclusion

Based on the results of this study, the impact of the presence of PT Medco Papua Hijau Selaras Capitol Group oil palm company on the socio-economic conditions of the surrounding community can be concluded as follows:

1. The presence of PT Medco Papua Hijau Selaras Capitol Group impacts the socio-ecological aspects of the decline in air quality, quantity, and water quality. However, it has not yet disturbed public health in Meyof I, Meyof II, and Wariki villages.
2. The presence of palm oil mills impacts socio-economic aspects, where there is an increase in search and vast open employment opportunities for the community. In contrast, conflict has increased, and competition remains.
3. PT Medco Papua Green, aligned with Capitol Group, positively impacts community welfare in Meyof I, Meyof II, and Wariki villages. An increase in community income characterizes this..

Ucapan Terima Kasih

Penulis mengucapkan terima kasih kepada tim IASSSF karena telah mendukung penulisan penelitian ini

Kontribusi Penulis

Semua penulis berkontribusi penuh atas penulisan artikel penelitian ini.

Pendanaan

Penelitian ini tidak menerima pendanaan eksternal.

Pernyataan Dewan Peninjau Etis

Tidak berlaku.

Pernyataan Persetujuan yang Diinformasikan

Tidak berlaku.

Pernyataan Ketersediaan Data

Tidak berlaku.

Konflik Kepentingan

Penulis menyatakan bahwa tidak ada konflik kepentingan pada penelitian ini.

Open Access

©2024. Artikel ini dilisensikan di bawah Lisensi Internasional Creative Commons Attribution 4.0, yang mengizinkan penggunaan, berbagi, adaptasi, distribusi, dan reproduksi dalam media atau format apa pun. selama Anda memberikan kredit yang sesuai kepada penulis asli dan sumbernya, berikan tautan ke lisensi Creative Commons, dan tunjukkan jika ada perubahan. Gambar atau materi pihak ketiga lainnya dalam artikel ini termasuk dalam lisensi Creative Commons artikel tersebut, kecuali dinyatakan lain dalam batas kredit materi tersebut. Jika materi tidak termasuk dalam lisensi Creative Commons artikel dan tujuan penggunaan Anda tidak diizinkan oleh peraturan perundang-undangan atau melebihi penggunaan yang diizinkan, Anda harus mendapatkan izin langsung dari pemegang hak cipta. Untuk melihat salinan lisensi ini, kunjungi: <http://creativecommons.org/licenses/by/4.0/>

Referensi

- Azwir. (2006). Analisa Pencemaran Air Sungai Tapung Kiri Oleh Limbah Industri Kelapa Sawit Pt. Peputra Masterindo Di Kabupaten Kampar. (Institutional Repository (UNDIP-IR)) [Tesis, Universitas Diponegoro]. Eprints 3 UNDIP. <http://eprints.undip.ac.id/15421/>.
- Badan Pusat Statistik Provinsi Papua Barat. (2023). Papua Barat dalam Angka. <https://papuabaratsbps.go.id/publication/2023/02/28/1675aaebd5ba59b4d6e1cdd3/provinsi-papua-barat-dalam-angka-2023.html>
- Badan Pusat Statistik Provinsi Indonesia. (2021). Statistik Indonesia 2021. Jakarta. <https://www.bps.go.id/id/publication/2021/02/26/938316574c78772f27e9b477/statistik-indonesia-2021.html>
- Budimanta, A., Yusgiantoro, P., Suparlan, P., & Sembiring, S. F. (2007). Kekuasaan dan penguasaan sumber daya alam: studi kasus penambangan timah di Bangka. <https://cir.nii.ac.jp/crid/1130282270603810944>
- Departemen Perindustrian. (1986). Surat Keputusan Menteri Perindustrian Indonesia No.19/M/I/1986 tentang Penetapan Jenis-Jenis Industri Dalam Pembinaan Masing-Masing Direktorat Jenderal Dan Kewenangan Pemberian Izin Usaha Industri Dan Izin Usaha Kawasan Industri Di Lingkungan Departemen Perindustrian Dan Perdagangan. Jakarta. <https://jdih.kemendag.go.id/peraturan/download/1149/2>
- Dumairy. (1999). *Perekonomian Indonesia. Yogyakarta: Bagian Penerbitan Erlang-ga. Ehrenberg, Ronald G., dan Smith, Robert S, 2003. Modern Labor Economics: Theory and Public Policy, Eight Edition. Pearson Education, Inc. New York City.*
- Parimita, W., Khoiriyah, S., & Handaru, A. W. (2018). Pengaruh Motivasi Kerja Dan Kompensasi Terhadap Kepuasan Kerja Pada Karyawan Pt Tridaya Eramina Bahari. *JRMSI - Jurnal Riset Manajemen Sains Indonesia*, 9(1), 125-144. <https://doi.org/10.21009/JRMSI.009.1.09>
- Fuad, F. H., & Maskanah, S. (2000). Inovasi penyelesaian sengketa pengelolaan sumber daya hutan. <https://cir.nii.ac.jp/crid/1130000796137430656>
- Gibson, J. L., Ivancevich, J. M., Donnely, J. H., & Dharma, A. (1987). *Organisasi: perilaku, struktur, proses*. Penerbit Erlangga.
- Hungu. 2016. Pengertian Jenis Kelamin. Jakarta: PT. Gramedia.
- Juditha, C. (2015). Budaya Dalam Iklan: Analisis Semiotik Iklan So Nice Versi 'Slank Rame-Rame'. *Jurnal: Walasuji*, 6(1). <https://adoc.pub/download/budaya-dalam-iklan-analisis-semiotik-iklan-so-nice-versi-sla.html>
- Suharto, E. (2009). Membangun masyarakat memberdayakan rakyat.
- Safitri, M. A., Muhshi, M. A., Muhajir, M., Shohibuddin, M., Arizona, Y., Sirait, M., ... & Sulistio, H. (2011). Menuju kepastian dan keadilan tenurial.

<https://media.neliti.com/media/publications/45242-ID-menuju-kepastian-dan-keadilan-tenurial.pdf>

Simanjuntak, P. (2001). Pengantar Ekonomi Sumber Daya Manusia. Jakarta: LPFEUI.

Sumarsono, S. (2003). Ekonomi manajemen sumberdaya manusia dan ketenagakerjaan. Graha Ilmu.

Soemartono, R. G. P. (2011). Hukum Lingkungan Indonesia. Sinar Grafika.

Sulton, A. (2011). Dampak aktivitas pertambangan bahan galian golongan c terhadap kondisi kehidupan masyarakat desa (analisis sosio-ekonomi dan sosio-ekologi masyarakat Desa Cipinang, Kecamatan Rumpin, Kabupaten Bogor, Jawa Barat). <http://repository.ipb.ac.id/handle/123456789/48165>

Biografi Penulis

AGUSTINUS MANDACAN, student at Economics Department, University of Papua, Indonesia.

- Email:
- ORCID: -
- Web of Science ResearcherID: -
- Scopus Author ID: -
- Homepage: -

RULLY NOVIE WURARAH, lecturer at Economics Department, University of Papua, Indonesia.

- Email: r.wurarah@unipa.ac.id
- ORCID: <https://orcid.org/0000-0001-6709-1486>
- Web of Science ResearcherID: -
- Scopus Author ID:
<https://www.scopus.com/authid/detail.uri?authorId=57222899721>
- Homepage: -

MICHAEL BARANSANO, junior lecturer at Economics Department, University of Papua, Indonesia.

- Email: -
- ORCID: <https://orcid.org/0000-0002-8445-7563>
- Web of Science ResearcherID: -
- Scopus Author ID: -
- Homepage: -