



Enhancing Human Development Through CSR Initiatives: a Case Study of PT Adaro Indonesia's Impact on Villages in Mining Operations

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ABSTRACT

From 2018 through 2023, this study examines how PT Adaro Indonesia's CSR programs affected villages in their major operations area, concentrating on HDI metrics like life expectancy, education, and living standards in South and Central Kalimantan. In 65 villages, 78% scored a high Human Development Index (HDI) and 22% a medium HDI. In comparison, 38% of villages had an HDI fall, while 62% saw an increase. In 98% of communities, CSR programs in education, healthcare, social and cultural advancement, environmental sustainability, and economic progress raised the consumption index (CI). These studies show that PT Adaro Indonesia's CSR activities improve community well-being, including healthcare, education, economic empowerment, and community-based projects, benefiting local populations. This research is crucial for mining operation planning.

INTRODUCTION

Human development can be understood as the manifestation of a society's overarching objectives over an extended period. It prioritizes the advancement of individuals, placing growth in service of human needs rather than subordinating humans to the pursuit of development. The human development paradigm encompasses four key elements: productivity, equity, sustainability, and empowerment. These components are widely recognized as significant obligations of the government (Ferguson, 2020; Lombard, 2007). The measurement of Human Development in Indonesia is conducted through the utilization of the Human Development Index (HDI), which is a comprehensive indicator of the overall development performance (Lind, 2019). According to Sen, (2000), the genuine wealth of a nation lies in its human population. The fundamental aim of development is to establish a conducive setting that allows individuals to experience extended periods of well-being, good health, and high levels of productivity (Nussbaum, 2000).

The Human Development Index (HDI) is a comparison metric that assesses many dimensions of human development across all nations globally, including life expectancy, education, and living standards (Lind, 2019). The Human Development Index (HDI) is employed to categorize nations into advanced, developing, or undeveloped categories (Sagar & Najam, 1998). Additionally, it serves as a tool for assessing the impact of economic policies on the overall quality of life (Ferguson, 2020). The Human Development Index (HDI) has been officially introduced and disseminated at several administrative levels, including district, provincial, and national, since 1996 (Bureau of Statistics., 2011). Presently, the HDI incorporates several indicators to assess human development: life expectancy at birth, expected years of schooling, average years of schooling, and per capita income (UNDP, 2020).

PT Adaro Indonesia and its affiliated firms have collaborated with the government to participate in human development initiatives since its establishment. This commitment is demonstrated through their corporate social responsibility (CSR) activities, as stated in the Adaro CSR Report 2022. According to the Adaro CSR Report, the CSR program is categorized into five distinct programs: economic, education, health, socio-cultural, and environmental (Adaro CSR Department, 2023). The primary focus of these programs is directed towards communities located within the operational territories of the company, which encompass two provinces, six districts, sixteen sub-districts, and sixty-five villages. The implementation of the Corporate Social Responsibility (CSR) Program has been identified as a means of community empowerment in South Kalimantan and Central Kalimantan provinces to improve the Human Development Index (HDI)

The company is required to measure the Human Development Index (HDI) to demonstrate its involvement in the development of human capital in the surrounding villages. This measurement serves as evidence of the company's responsiveness to stakeholders' needs and provides valuable input for the formulation of the Community Development and Empowerment Master Plan (RIPPM). This requirement is outlined in the Ministry of Energy and Mineral

Resources Decree No. 1824 K/30/MEM/2018, which provides guidelines for implementing Community Development and Empowerment (PPM) (Ministry of Energy and Mineral Resources, 2018). The measurement in question also fulfills the necessary parameters set by the Ministry of Environment and Forestry (KLHK) as outlined in Minister of Environment and Forestry Regulation No. 3 of 2013 and Minister of Environment and Forestry Regulation No. 1 of 2021(Corporate Performance Rating Assessment Program in Environmental Management, 2021)

The primary objective of this research is to understand the intricate dynamics of human development in Indonesia, with a specific focus on the operational areas of PT Adaro Indonesia in both South Kalimantan and Central Kalimantan areas. This study is also to identify the obstacles faced in local development, evaluate the effects of business activities in corporate social responsibility (CSR), measure the Human Development Index (HDI), produce realistic policy suggestions, contribute valuable insights for future community development planning, and assure adherence to regulatory requirements. This study seeks to make a scholarly contribution to improving human well-being, the efficacy of corporate social responsibility initiatives, and the sustainable development of communities in the specified region.

METHODOLOGY

This research employs a mixed-methods approach, combining quantitative and qualitative research methodologies. The quantitative aspect of the study adopts a descriptive method with a survey approach, while the qualitative aspect utilizes a case study method. The determination of the number of respondents is based on the minimum required respondents as per Fraenkel and Wallen's criteria, which is 30 respondents per village, resulting in a total of 1950 households across 65 villages. The research instrument used in this study is a questionnaire developed by the Research and Community Service Institute of Lambung Mangkurat University to assess the Human Development Index (HDI). Data analysis in this research involves both quantitative and qualitative approaches. The quantitative approach is employed to quantify all acquired data, which will subsequently be used in a formula simulation to calculate numerical values for determining the target and growth status of the HDI at the district level. Primary and secondary data will both be presented as index values. These index values will then be standardized to guarantee measurement unit uniformity.

RESEARCH RESULT

In 2022, the Human Development Index (HDI) for South Kalimantan Province reached 71.84, while Central Kalimantan Province achieved an HDI of 71.63. The measurement of the Human Development Index (HDI) in this report was conducted in the villages within PT Adaro Indonesia's operational areas, spanning six districts, 15 sub-districts, and 65 villages.

Table 1. Tabalong's Sub-District Socioeconomic Indicators (2018-2023)

Sub-District	Village	HDI 2018	HDI 2023	LE 2018	LE 2023	ALS 2018	ALS 2023	CI 2018	CI 2023
Kelua	Pasar Panas	90.89	79.13	91.00	90.0	14.25	14.25	34.71	59.83
Haruai	Lok Batu	71.62	79.41	73.38	89.8	8.2	10.5	12.69	14.35
Jaro	Jaro		78.53		88.2		14.21		60.31
Muara Harus	Harus	66.65	68.14	68.06	72.2	9.3	7.6	12.26	12.26
	Manduin	76.57	73.52	85.84	84.7	8.7	7.9	12.43	12.43
	Mantuil	82.11	74.98	86.41	88.2	7.9	7.9	12.46	12.46
	Rata-rata	75.1	72.2	80.1	81.7	8.5	7.8	12.38	12.38
Tanjung	Banyu Tajun	78.15	70.72	83.28	80.8	9.2	7.1	11.88	11.88
Murung Puduk	Kasiau	66.94	76.92	88.24	88.4	7.9	9.2	12.44	13.40
	Mabuun	92.61	75.05	90.21	86.4	11.6	8.6	15.17	12.94
	Maburai	97.09	78.11	89.80	90.8	11.8	9.4	15.34	13.58
	Rata-rata	85.55	76.69	89.42	88.53	10.43	9.07	14.32	13.31
Upau	Bilas	84.79	75.03	75.75	86.4	8.1	8.5	12.9	12.9
	Kaong	71.69	68.99	72.16	86.6	6.8	7.6	12.21	12.21
	Lahei	89.63	73.16	80.47	88.3	8.9	7.8	13.03	13.03
	Total average	82.37	72.73	76.13	87.77	7.93	7.97	12.71	19.15

Table 2 Human Development Index (IPM) Data for Sub-Districts in Balangan District (2018-2023)

Sub-District	HDI 2018	HDI 2023	LE 2018	LE 2023	ALS 2018	ALS 2023	SE 2018	SE 2023	CI 2018	CI 2023
Paringin										
Dahai	62.02	73.74	86.34	86.34	8.7	7.7	13.01	12.29	44.8	60.1
Sungai Ketapi	70.73	70.14	85.13	86.3	6.9	5.4	11.7	10.65	45.6	60.4
Lasung Batu	67.6	71.3	86.34	86.34	8.2	6.1	12.69	11.12	48.4	60.5
Paringin Kota	54.18	78.45	89.61	81.43	9	12.6	13.24	15.91	42.6	59.8
Paringin Timur	46.37	72.79	89.48	79.36	11.6	8.9	13.24	13.18	38.1	60.5
Balida	66.67	75.15	85	85.13	6.4	9	13.24	13.24	46.4	59.9
Murung Ilung	67.63	73.21	83.06	83.06	8.1	8.3	12.38	12.75	47.1	59.7
Balang	67.91	71.98	80.62	80.62	8.4	8.1	12.83	12.63	43.9	59.8

Mangkayahu	61.61	75.7	83.06	83.06	8.2	9.9	12.68	13.95	40.5	60
Paran	64.65	77.07	80.62	89.61	7.7	9	13.27	13.27	49	60
Babayau	63.94	73.67	79.92	84.64	8.5	8	12.92	12.53	50.6	60.3
Lok Batung	74.03	79.41	86	89.81	9	10.5	12.6	14.35	40.7	60.2
Lamida Bawah	71.22	72.94	80.67	80.67	8.6	8.8	12.92	12.53	47.2	60.5
Halong										
Gunung Riut	64.66	74.4	82	89.71	6.4	7.2	11.93	11.93	47	60.4
Liyu	65.1	70.85	80.62	80.62	7.2	7.2	11.97	11.97	53.5	60.5
Juai										
Buntu Karau	56.98	77.48	91	91	10.9	8.9	14.71	13.21	39.2	60
Sirap	68.67	74.68	61.43	86.42	9.95	8.2	13.96	12.66	48.3	60.4
Bata	62.98	76.56	91	91	8.5	8.2	12.92	12.71	49.6	60.3
Sumber Rezeki	69.96	76.79	91	83.81	9.4	10.5	13.52	14.35	50.5	60
Mihu	55.16	78.06	91	91	10.2	9.1	14.17	13.34	44.1	60.7
Lalayau	74.88	74.68	91	84.64	6.7	8.6	11.6	13	50.8	60.5

Table 3 Human Development Index (HDI) Trends in Barito Kuala Villages (2018-2023)

Village	HDI 2018	HDI 2023	LE 2018	LE 2023	ALS 2018	ALS 2023	SE 2018	SE 2023	CI 2018	CI 2023
Asia Baru	60.1	74.97	71.00	91.00	7.57	7.32	12.22	10.36	51.99	59.99
Jambu Baru	71.0	77.07	71.00	91.25	7.98	8.42	12.52	12.91	46.44	60.51
Jambu	45.1	76.75	71.00	91.00	7.98	8.42	12.52	12.04	53.15	60.05
Jarenang	76.5	75.56	71.00	91.00	7.98	7.79	12.52	12.84	37.58	59.60
Kabuau	52.8	65.55	56.00	71.43	7.98	6.56	12.52	12.84	54.25	59.99
Tabatan Baru	55.3	63.54	46.68	66.68	7.79	6.59	24.90	23.88	54.65	60.76
Tabatan Lama	73.7	75.69	71.00	91.00	7.77	7.59	37.11	37.44	44.64	60.71
Kuripan	69.9	79.24	71.00	91.00	7.98	10.26	12.52	14.19	48.39	59.46
Rimbun Tulang	59.9	67.83	51.59	71.59	7.90	7.90	12.46	12.46	49.32	60.67

Table 4 Human Development Index (HDI) and Related Indicators in Selected Villages (2018-2023) in Hulu Sungai Utara district, South Kalimantan, Indonesia

Village	HDI 2018	HDI 2023	LE 2018	LE 2023	ALS 2018	ALS 2023	SE 2018	SE 2023	CI 2018	CI 2023
Paminggir	47.778	61.6	65.4	65.4	5.3	6.1	10.55	11.14	56.72	59.05
Paminggir Seberang	60.358	64.8	67.3	67.3	5.9	7.5	10.99	12.19	57.36	59.64
Sapala	58.300	61.9	65.5	62.5	7.5	7.0	12.17	11.83	56.15	60.62
Ambahai	68.623	63.9	67.7	65.5	10.7	7.3	14.51	12.03	55.91	

Table 5. Human Development Index (HDI) and Related Indicators for Selected Villages of East Barito in 2018 and 2023

Villages	HDI 2018	HDI 2023	LE 2018	LE 2023	ALS 2018	ALS 2023	SE 2018	SE 2023	CI 2018	CI 2023
Taniran	82.703	75.32	81.1	77.5	10.86	11.5	14.63	15.1	37.68	60.11
Banyu Landas	87.633	68.44	78.7	74	8.7	7.8	13.05	12.41	42.48	59.50
Bagok	100.184	68.83	79.6	72	9.76	8.7	13.82	13.02	45.92	59.93
Gudang Seng	114.140	70.26	77.5	74	9.2	8.9	13.41	13.21	44.32	60.23

Table 6. Human Development Indicators for Selected Villages in South Barito District (2018-2023)

Villages	HDI 2018	HDI 2023	LE 2018	LE 2023	ALS 2018	ALS 2023	SE 2018	SE 2023	CI 2018	CI 2023
Kalanis	42.88	72.13	61.6	81.6	7.38	7.8	0.5%	12.08	47.07	60.42
Rantau Kujang	89.91	73.73	81.8	80.6	10.34	9.4	14.25	13.57	12.62	59.66
Rantau Bahuang	53.36	76.30	80.9	80.2	6.97	11.4	11.78	15.03	48.65	59.75
Tabatan	95.08	73.60	78.7	78.7	7.77	9.6	17.11	17.44	44.64	60.71
Tampulang	73.41	71.10	78.7	80.2	6.7	7.5	11.58	12.19	48.17	60.38
Rangga Ilung	56.84	73.47	81.8	81.8	7.3	8.9	12.02	13.18	42.63	59.56

DISCUSSION

The Human Development Index (HDI) in Tabalong District rose 0.53% between 2018 and 2022, reaching 7.13 in 2022. The following table shows socioeconomic indicators for distinct sub-districts, including HDI, LE, and ALS changes between 2018 and 2023. These indicators reveal the progress and well-being of each Tabalong District sub-district. The lack of healthcare services in Kecamatan Kelua was consistent with previous studies (Gogoi et al., 2021; Nel & Hill, 2000). Numerous studies show that not having essential medical equipment and healthcare services reduces life expectancies and hinders human growth. Nel & Hill, (2000) and Gogoi et al., (2021) found that community-led economic initiatives boost regional progress. Manda et al., (2021) show that economically empowered local groups can enhance living circumstances and consumption; BUMDES and similar initiatives have succeeded in numerous locations.

The stability of ALS in Desa Pasar Panas is encouraging. However, Nidup et al., (2021) found that comprehensive teaching is necessary. Research shows that educational infrastructure alone cannot improve education quality. This finding supports the qualitative aspect, underlining the importance of accessibility and educational quality.

Corporate social responsibility (CSR) activities in Indonesia, like those of PT Adaro Indonesia, have been shown to benefit local communities (Adaro CSR Department, 2023; Ridho, 2017). These programs improve infrastructure, vocational training, and economic empowerment. The above facts support the idea that public-private partnerships are essential to sustainable development. The relationship between economic conditions and educational motivation and achievement has been extensively studied (Broer et al., 2019; Guo et al., 2015). Numerous studies have shown that socioeconomic conditions affect educational success. To improve ALS, motivational and economic constraints must be addressed. This discovery matches existing research.

Desa Lok Batu's successes are consistent with previous research on community resilience and sustainable economic initiatives (Buckman & Tremblay, 2021; Manda et al., 2021). Numerous studies have shown that varied economic activity and community engagement improve living standards. This discovery emphasizes community-led growth. The differences in Human Development Index (HDI) amongst sub-districts highlight the need for multi-dimensional development. This view is supported by development literature like Nel & Hill, (2000) and Nidup et al., (2021). Sustainable development scholars and groups have stressed the importance of addressing healthcare, education, and economic well-being simultaneously to make significant progress.

In South Kalimantan's development challenges and opportunities, the UN Sustainable Development Goals (SDGs) correspond with global efforts to improve human well-being (BPS et al., 2001; UNDP, 2020). Previous research has shown that aligning local development initiatives with Sustainable Development Goals (SDGs) might help reduce inequities and improve citizens' well-being in varied regions.

Balangan, with eight sub-districts, saw an improvement in its Index of Poverty Measurement (IPM) between 2018 and 2023. However, a more thorough

investigation of the variables that cause quantitative and qualitative data alterations is needed.

Table 2 shows HDI data for Balangan District sub-districts. The index above measures well-being and development in each sub-district using a variety of parameters. Life Expectancy (LE), Average Length of Studies (ALS), School Expectancy (SE), and Consumption Index (CI) are shown in the table for 2018 and 2023. These measures reveal human development trends and disparities in Balangan district sub-districts.

From 64.50 in 2018 to 74.27 in 2023, Balangan district's HDI has improved. The region's 9.05% gain reflects positive human development in several areas. Sub-districts have large HDI differences. Lok Batung and Lamida Bawah have high HDI ratings. In contrast, Paringin and Halong have lower HDI values. The disparity requires a deeper understanding of regional development and resource distribution policies. The Human Development Index depends on healthcare access. Sub-districts with modern healthcare facilities, such as poskesdes (village health post) and posyandu (Integrated health service post), and close proximity to hospitals have higher HDI values. Life Expectancy (LE) levels in certain sub-districts increase. ALS, or length of schooling, is a major factor. Sub-districts with better education facilities have higher HDI values and higher student motivation. The rise of ALS findings in some places supports this fact. The rising Consumption Index implies that certain sub-districts are doing better economically. PT Adaro Indonesia's CSR actions have improved the local community's socioeconomic conditions.

In 2023, the Balangan District Statistical Agency examined HDI trends and found considerable improvements. However, research and policy discussions on regional inequities and sustainability of these improvements must continue (Al-Hilani, 2012). A better understanding of human development in the region can be gained by comparing contemporary findings to previous research (Nai Ruscone & Fernández, 2021). This can help create evidence-based policies to advance progress (Andriansyah et al., 2022). It is important to note that while HDI scores have increased significantly, qualitative observations help explain why. Community participation through corporate social responsibility (CSR) activities (Lompo & Trani, 2013), improved healthcare access (Andriansyah et al., 2022), educational opportunities (Khadzhalova et al., 2021), and sustainable economic growth (Elistia & Syahzuni, 2018) are widely recognized. The above findings demonstrate the complexity and diversity of human development and the need for a comprehensive approach to address inequities and promote sustainable progress in Balangan.

Table 3 shows the HDI for villages in Barito Kuala Regency, South Kalimantan Province, Indonesia. Key variables including Life Expectancy (LE), Average Length of Study (ALS), School Expectancy (SE), and Consumption Index are used to compare 2018 and 2023 HDI values. These metrics reveal these villages' social and educational progress within the allocated period, reflecting their overall growth.

Similar changes in the Human Development Index (HDI) and its components in Kuripan Village have been found in many other regions,

revealing rural socioeconomic dynamics. Anggraini, (2023) found that improving healthcare and education in rural Indonesia raised the Human Development Index (HDI) over five years. These improvements match those in Kuripan's Kabuau, Tabatan Baru, and Rimbun Tulang Villages. This study showed how important healthcare and education are for human development.

Additionally, Hasibuan et al., (2023) evaluated the effects of community-driven initiatives and corporate social responsibility programs on rural communities and found similarities to Asia Baru and Kuripan communities. The research found that cooperative efforts including local communities, private firms, and government agencies, like Asia Baru Village, can enhance healthcare accessibility and life expectancy. It also highlighted the positive impact of these efforts on area economies, supporting the results of the enhanced Consumption Index in Asia Baru Village, Kuripan.

Similar to Jambu Village, Paliova et al., (2019) explored the factors that raise Human Development Index (HDI) in agricultural villages in a cross-sectional study. The researchers found that a village can move up the Human Development Index (HDI) by improving healthcare, education, and natural resource use, such as fishing, wood collection, and palm labor, as Jambu Village did. These parallel research findings support Kuripan Village observations, contributing to the scholarly discourse about rural human development. The authors stress multi-stakeholder cooperation and strategic interventions to solve rural community problems and promote sustainable development. These activities support evidence-based policy decisions to improve the situation.

The Adaro Indonesia's Kuripan CSR activities have improved many facets of human development, as shown by the positive changes in various villages. These programs have greatly improved community welfare and sustainable development. Healthcare infrastructure development is PT Adaro Indonesia's CSR focus. Healthcare infrastructure like Poskesdes and Puskesmas has improved access to medical treatments, increasing life expectancies in remote regions. These advantages have contributed to Jambu Village's rising life expectancy.

Additionally, programs like the Pengadaan Jaring Sparnet (Sparnet Net Procurement) in Jambu Baru have increased fishing, thereby improving healthcare accessible by stimulating the local economy. Educational initiatives like the Pengadaan Alat Bermain (Provision of Playground Equipment) for TK and PAUD in Jambu Village have increased the local Average Length of Schooling (ALS). Human development depends on adequate educational facilities and resources, and PT Adaro has helped these communities. Adaro Indonesia's support for economic prospects, such as financing small businesses in Tabatan Baru, has also raised the Consumption Index in these areas. Economic growth improves citizens' well-being and local economies.

Table 4 shows important human development indices as the HDI, LE, ALS, SE, and CI. The following data are for a specific collection of villages in Kabupaten Hulu Sungai Utara, South Kalimantan, Indonesia. The 2018–2023 dataset provides important insights on human development patterns and developments across areas.

However, Desa Ambahai's Human Development Index (HDI) dropped 7% to 63.9 in 2023 from 68.62 in 2018. Compared to last year, the Life Expectancy Index (LE) and Average Length of Study Index (ALS) fell 3%. The community's Consumption Index rose 7.7% to 60.58 in 2023 from 55.91 in 2018.

Two Paminggir villages, Desa Paminggir (61.6) and Desa Sapala (61.9), improved their HDI classification. Both villages went from "low" in 2018 to "medium" in 2023. The maintained Life Expectancy Index (LE), Average Length of Study Index (ALS), and Consumption Index contributed to the increase. The constant UHH indicates enough healthcare facilities and staff to meet rising healthcare needs. Due to well-equipped educational facilities at all levels – one Pre-school Education (PAUD), two Primary Schools (SD/MI), one Junior High School (SMP), and one Senior High School – ALS has improved. The Consumption Index in Desa Paminggir rose due to abundant natural resources including fisheries and livestock raising. The "Bina Bersama" Cooperative, funded by PT Adaro Indonesia, also boosted communal finances.

Paminggir Seberang and Ambahai villages have "medium" Human Development Index (HDI) ratings of 64.8 and 63.9 in 2023. Continuous Universal Health Coverage (UHH) indicates appropriate healthcare infrastructure and convenient access to healthcare services for Paminggir Seberang residents. The drop in further education can be attributed to a loss of motivation, which might be linked to family economic hardship. These factors cause people to put work and family before schooling. PT Adaro Indonesia's CSR program raised the Consumption Index in both villages. This effort built swiftlet nests, fish ponds, and molds in Ambahai and Paminggir Seberang (Adaro CSR Department, 2023). In rural Indonesia, Zahroh & Pontoh, (2021) and Rela et al., (2020) have shown that improving education accessibility and quality boosts Human Development Index (HDI) ratings over time. In the Paminggir sub-district, the Average Length of Study (ALS) and Human Development Index (HDI) are positively correlated.

Rudito, (2014) found that corporate social responsibility (CSR) programs boost local economies in Bandung. Their research showed that carefully planned and performed CSR programs, like those of PT Adaro Indonesia, can boost income and living standards. Hills, (2005) found evidence that corporate social responsibility (CSR) programs enhance long-term economic activity. Rural enterprises' income-generating projects have long-term benefits, the author notes. This finding supports Paminggir's rising Consumption Index, demonstrating long-term economic empowerment.

Rigg, (2020) found that many rural Southeast Asian communities need help maintaining their Human Development Index (HDI) improvement over time, despite some positive achievements. The fall in the Human Development Index (HDI) in Ambahai shows that preserving human development progress remains a challenge. In remote rural areas, Strasser et al., (2016) and Soewondo et al., (2019) found inadequate healthcare access and infrastructure. The decline in life expectancy (LE) in Ambahai may indicate healthcare system deficiencies, consistent with earlier study. Andari, (2020) showed that external factors may prevent corporate social responsibility (CSR) from addressing economic inequalities in rural Indonesia. PT Adaro Indonesia's efforts empowered the

economy. However, external economic causes may explain the drop in ALS (Adult Literacy Rate) in some localities.

The Human Development Index (HDI) and important indicators for four villages in 2018 and 2023 are compared in Table 5. Life Expectancy (LE), Average Length of Study (ALS), School Expectancy (SE), and Consumption Index (CI) increase HDI values. These metrics reveal socioeconomic and developmental trends in these villages over five years. The data shows each hamlet's human development progress in various areas.

The Human Development Index (HDI) for East Barito villages shows significant changes from 2018 to 2023, indicating changes in community welfare and progress. The HDI drop in all four localities is concerning. A reduction in health, education, and living conditions indicates a decline in human progress. The average Human growth Index (HDI) dropped 36% in 2018, indicating a major setback in these towns' growth. Life expectancy (LE) declines mean healthcare availability and quality diminish. Lack of healthcare practitioners in remote locations and high rates of smoking and alcohol use contribute to poor health outcomes. The decline in the Average Length of Study (ALS) is mostly due to rural educational infrastructure shortages. Financial constraints may inspire students to study abroad. This raises concerns about the incentive to pursue tertiary education despite such hurdles. Economic factors greatly affect HDI component reduction. Financial circumstances may affect family healthcare and education decisions. Chesters, (2019) study found a link between family wealth and education.

Human Development Index (HDI) differences between different communities must be considered for local development. The Kelurahan Taniran has the highest Human Development Index (HDI) in 2023 due to improvements in the Average Length of Study. This suggests that investing in education may pay off. However, the remaining communities' Human Development Index (HDI) categories have declined, indicating developmental challenges. Desa Banyu Landas and Desa Bagok have moved from extremely high to medium Human Development Index (HDI) categories, highlighting the need for targeted interventions.

CSR and community development researchers have found similar results. Kurnia et al., (2020) found that focused corporate social responsibility (CSR) programs improve rural life and economic conditions. In diverse situations, corporate social responsibility (CSR) efforts focused on income production and local entrepreneurship often increase household incomes and consumer patterns. Blanden et al., (2002) have noted that corporate social responsibility (CSR) activities improve education and healthcare in underprivileged communities. The researchers found that investing in educational infrastructure, scholarships, healthcare facilities, and medical outreach programs improved Human Development Index (HDI) indices. The research findings emphasize the relevance of corporate social responsibility (CSR) efforts like PT Adaro Indonesia in tackling rural socioeconomic issues. These programs improve human development and well-being through promoting economic diversification and necessary services. This matches Benua Lima communities' positive trends.

The four East Barito villages' HDI decline is concerning. CSR actions by PT Adaro Indonesia have had a positive impact. The data shows how the programs improved these communities' Consumption Index (CI). Rice milling businesses, cooperatives like "Maju Bersama Taniran," tent rental services, and freshwater lobster aquaculture have expanded local economic opportunities. These projects may help locals cope with economic constraints. Corporate social responsibility (CSR) efforts have supported local development and economic progress despite diminishing healthcare and education services. This statement shows how corporate social responsibility (CSR) can help governments address challenging rural development issues.

The Human Development Index in South Barito has continually improved. In 2019, South Barito had a high HDI of 70.10. The HDI has steadily increased, reaching 71.01 in 2022. Table 6 compares major human development metrics across villages from 2018 to 2023. HDI, LE, ALS, SE, and CI are included in this set. The data shows how human development in the communities changed throughout time.

The HDI statistics for South Barito shows that PT Adaro Indonesia's CSR initiatives have a significant impact on local communities. Human Development Index (HDI) has increased in Kalanis. This benefit is due to improved healthcare infrastructure, accessibility, and educational facilities. This finding aligns with corporate social responsibility (CSR) activities, which invest in healthcare and education to improve communities (Jutte, 2019).

However, Rantau Kujang and Tabatan in Jenamas villages have had their Human Development Index (HDI) ratings drop despite a regional increase. Healthcare and economic issues have been related to the current situation, which affects educational success. This supports earlier study linking socioeconomic status to education (Leukhina, 2023; Neupane, 2017). CSR projects by PT Adaro Indonesia also benefit villages like Rantau Bahuang and Rangka Ilung. These villages' HDIs have increased from low to high. This shows the importance of accessible healthcare and educational infrastructure in community development. Previous research in the same region supports this finding. This study confirms earlier findings that healthcare, education, and economic support improve human development metrics. These findings suggest more targeted actions to improve these populations' well-being.

PT Adaro Indonesia's corporate social responsibility (CSR) projects have helped Rantau Bahuang and Rangka Ilung rise from lower to higher Human Development Index (HDI) categories. These programs have greatly improved healthcare, education, and community socioeconomic situations. When adapted to meet community needs, CSR programmes have a considerable impact on numerous aspects of human development (Kurnia et al., 2020).

CONCLUSIONS AND RECOMMENDATIONS

This research has yielded significant findings about the Human Development Index (HDI) in diverse communities within South and Central Kalimantan, as well as the impact of PT Adaro Indonesia's Corporate Social Responsibility (CSR) initiatives on these indices.

The main research objectives encompassed gaining a comprehensive understanding of the trends in Human Development Index (HDI), identifying villages that exhibited improvements or reductions in HDI, and assessing the influence of Corporate Social Responsibility (CSR) efforts on the various components of HDI. The initial research indicates that a considerable majority, around 78%, of the functioning villages are classified as high HDI, indicating notable advancements in human development metrics. Nevertheless, it is important to highlight that a significant proportion of the villages, specifically 22%, were classified as having a medium Human Development Index (HDI). This classification suggests that these regions may necessitate specific and focused development measures. Furthermore, while analyzing the distribution of Human Development Index (HDI) advancement, it was found that 62% of the villages had an upward trend in their HDI values, whilst 38% observed a fall. This discovery suggests that although numerous villages exhibit good advancements, certain regions encounter difficulties in sustaining or improving their level of human development. Finally, the research emphasized the significant influence of PT Adaro Indonesia's corporate social responsibility initiatives on the many components of the Human Development Index (HDI) in the surrounding villages. These components include education, healthcare, social and cultural advancement, environmental sustainability, and the local economy. These programs have made substantial contributions towards enhancing living standards and overall well-being within these areas.

In conclusion, the research has successfully achieved its aims, and the results emphasize the significance of ongoing corporate social responsibility (CSR) initiatives in facilitating favorable transformations in human development indicators within the villages located in the First Ring of PT Adaro Indonesia's operating mining regions. Nevertheless, the research also indicates the necessity for focused interventions in rural communities experiencing a decline in Human Development Index (HDI) values. In general, this study enhances the collective comprehension of the effects of corporate social responsibility (CSR) initiatives on human development. It also serves as a helpful reference for future development strategies in the communities located in Ring 1 of PT Adaro Indonesia's mining sites.

ADVANCED RESEARCH

A notable constraint of this research is in its dependence on self-reported data, which has the potential to induce bias or the exclusion of adverse outcomes when evaluating the effects of corporate social responsibility initiatives. In order to augment the scholarly rigor of the study, it is recommended that forthcoming research endeavors encompass a broader range of objective metrics and external evaluations. Additionally, conducting longitudinal analyses to investigate the enduring effects of the program, comparing corporate social responsibility (CSR) initiatives across various mining companies, integrating qualitative data derived from community perspectives, evaluating environmental consequences, appraising stakeholder engagement, performing cost-benefit analyses, and exploring the generalizability of findings to alternative contexts are all crucial

avenues to pursue. By doing so, a more comprehensive and resilient comprehension of the genuine impact of CSR endeavors in mining operations can be attained.

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