

LIVELIHOOD RECOVERY AFTER LAND ACQUISITION FOR A NATIONAL STRATEGIC PROJECT: A CASE STUDY OF THE TUBAN OIL REFINERY, INDONESIA

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Abstract

The construction of the Tuban Oil Refinery, which is included in the National Strategic Project (PSN), has a significant impact on the social, economic, and environmental aspects of the community around the project site, especially Wadung and Sumurgeneng Villages. This article aims to analyze the dynamics of people's lives after land acquisition and evaluate the effectiveness of the recovery program implemented by PT Pertamina. The research uses a qualitative-descriptive approach by collecting data through document studies, interviews, and field observations. The results of the study show that land acquisition has a positive impact on some land-owning farmers who receive considerable financial compensation, but it creates vulnerability for farm workers, smallholders, and ranchers who lose their source of livelihood and do not receive direct compensation. The recovery of people's lives is analyzed based on five types of assets: human, natural, social, physical, and financial. PT Pertamina responds to this impact through CSR programs such as relocation, job training, educational scholarships, and environmental and social programs for the surrounding community. While there has been an increase in physical and financial assets in some groups, long-term recovery requires sustained support and local community-based adaptive policies. This article recommends the need for integration between land acquisition, livelihood protection, and community capacity building in nation-scale development projects.

Keywords: land procurement, PSN, asset recovery, CSR, Tuban oil refinery

1. Introduction

Large-scale infrastructure development plays a critical role in accelerating national economic growth, particularly in developing countries like Indonesia. In accordance with Presidential Regulation No. 3 of 2016 on the Acceleration of National Strategic Projects (NSP), the Indonesian government has launched several large infrastructure projects, including the Tuban Oil Refinery, to meet growing energy demands and promote economic equity (Republic of Indonesia, 2016). While these projects offer macroeconomic benefits, they also bring substantial implications for local communities, especially in terms of land acquisition and resettlement (Schneider et al., 2020).

The Tuban Oil Refinery, developed by PT Pertamina in collaboration with Rosneft, is part of a long-term national strategy to enhance Indonesia's energy security by reducing dependence on imported fuel and increasing refining capacity. The project's location in the rural districts of Wadung and Sumurgeneng in East Java, where agriculture is the primary source of livelihood, highlights the friction between national economic goals and local sustainability. Approximately

384 hectares of productive land were acquired, displacing not only homeowners but also tenant farmers and agricultural laborers whose incomes depend on land access (Darwis, 2020; Utami et al., 2021).

Although the land acquisition was carried out under Law No. 2 of 2012 and Presidential Regulation No. 66 of 2020, ensuring legal frameworks for compensation, the socio-economic consequences were far-reaching. Compensation payments, while significant, varied in terms of how they were utilized. Some landowners managed to purchase new land or invest in business activities, but many others—particularly those with low financial literacy—used their compensation for non-productive expenditures, leading to unsustainable outcomes. This scenario supports prior findings which argue that monetary compensation alone is insufficient to address livelihood vulnerability (Kustiningsih, 2017; Nurfadillah, 2016).

The impact was not limited to financial aspects. Social dislocation also occurred as entire neighborhoods were relocated, leading to the dissolution of social networks and weakening of informal institutions such as communal farming groups, religious associations, and mutual aid systems. The disintegration of these networks affects community resilience and social cohesion, which are crucial in the face of rapid change (Ellis, 2000). For many families, relocation also meant a loss of identity tied to place, further complicating the process of adaptation and recovery (Cernea, 2000).

Environmental concerns were also raised. The conversion of green, fertile farmland into industrial infrastructure affected local biodiversity, soil quality, and microclimates. Furthermore, grazing lands and sources of fodder for livestock were lost, increasing operational costs for local farmers. Such environmental displacement can undermine rural food systems and exacerbate socio-ecological vulnerabilities (Schneider et al., 2020).

To mitigate these impacts, PT Pertamina initiated several corporate social responsibility (CSR) programs targeting employment, education, health, and environmental conservation. While well-intentioned, these efforts often faced implementation challenges such as misalignment with community needs, limited participation of affected groups, and sustainability concerns. Some programs, like scholarships and vocational training, had long-term potential but required stronger integration with local governance and community-led planning to ensure their effectiveness (DFID, 2001; Bebbington, 1999).

In this context, the Sustainable Livelihoods Framework (SLF) offers a valuable analytical lens. By focusing on five key capital assets—human, natural, financial, physical, and social—the SLF facilitates a holistic understanding of how development-induced displacement affects community resilience. It also underscores the importance of asset diversification and institutional support in recovery processes (Chambers & Conway, 1992).

This paper aims to explore how the Tuban Oil Refinery development has affected community livelihoods post-land acquisition, particularly through the lens of the SLF. It evaluates the socio-economic adjustments made by affected households, analyzes the effectiveness of Pertamina's CSR programs, and offers policy recommendations for more inclusive, asset-based recovery

models in future infrastructure development. Through this case, the study contributes to broader discussions on balancing national development with local sustainability and social justice.

2. Methodology

This research employs a qualitative descriptive approach to investigate the impact of land acquisition and the effectiveness of livelihood recovery programs in the Tuban Oil Refinery project. The qualitative method is suitable for understanding social phenomena in their natural settings, allowing for an in-depth exploration of perceptions, behaviors, and adaptations of affected communities (Creswell, 2013).

2.1 Research Design

The study design follows a case study model that focuses on the villages of Wadung and Sumurgeneng in East Java as the primary units of analysis. These locations were chosen due to their proximity to the Tuban Oil Refinery construction site and the intensity of socio-economic disruptions experienced by the residents. The Sustainable Livelihoods Framework (SLF) serves as the analytical lens, enabling the categorization of impacts and adaptations based on five key assets: human, natural, financial, physical, and social capital (DFID, 2001; Chambers & Conway, 1992).

2.2 Data Collection Techniques

Data were collected through triangulation of methods, including:

1. Document Analysis: Review of government regulations, environmental impact assessments, village monographs, and PT Pertamina's CSR reports.
2. In-depth Interviews: Conducted with 30 participants, including affected landowners, tenant farmers, community leaders, local government officials, and Pertamina representatives. Interviews used a semi-structured format to maintain flexibility while ensuring consistency across responses (Patton, 2002).
3. Field Observation: Direct observation was carried out in relocated housing sites and surrounding communities to capture physical and social changes post-acquisition. Observations were documented in field notes and photographs.

2.3 Data Analysis

Thematic analysis was applied to identify and organize emerging patterns across the five livelihood assets. Interview transcripts, field notes, and documents were coded manually and verified through peer debriefing to enhance credibility. The analysis followed Miles and Huberman's (1994) model of data reduction, data display, and conclusion drawing.

2.4 Validity and Reliability

To ensure data trustworthiness, this study used triangulation of sources and methods, member checking during interviews, and peer validation of coded themes. The study also adhered to ethical research principles by obtaining informed consent, protecting confidentiality, and ensuring voluntary participation.

In summary, the chosen methodology allows for a holistic and contextual understanding of how affected communities navigate disruptions caused by land acquisition and engage with recovery

programs. By using a structured framework and multiple sources of evidence, the study ensures analytical rigor and practical relevance.

4. Results

4.1 The Impact of Land Acquisition on Community Life

The land acquisition for the construction of the Tuban Oil Refinery has a wide impact on the lives of the people of Wadung and Sumurgeneng Villages. A total of 384 hectares of land consisting of agricultural land and settlements have been converted. Based on the data of the village monograph in 2020, the details of the impact of land acquisition are presented in Table 1.

Table 1. Total Land Area Lost or Affected by Development Projects

Village	Land Area Before (Ha)	Lost Land (Ha)	Residual Land (Ha)	% Land Lost
Wadung	468	165	303	35,26%
Sumurgeneng	700	219	481	31,29%
Sum	1.168	384	784	-

The lost land is generally productive agricultural land, with potential agricultural products such as chili, corn, and peanuts. This change in land use results in a decrease in agricultural productivity as shown in Table 2.

Table 2. Prediction of Decline in Agricultural Production

Plant Type	Affected Area (Ha)	Production per Ha (Ton)	Total Production (Tons)
Chili	376	1,33	499,67
Corn	376	6,46	2.430,54
Peanut	376	1,63	611,95

In addition, around 1,288 people were affected by the loss of livelihoods, consisting of land-owning farmers and farm laborers.

4.2 Changes in the Five Livelihood Assets

Human Assets: Most of the affected people only have education up to the elementary level (41%). This makes it difficult for them to adapt to new jobs that require certain skills.

Natural Assets: Land use transfer removes green space and degrades environmental quality. Land loss also has an impact on the availability of animal feed for 670 cows and 435 goats owned by residents.

Financial Assets: Landowners receive compensation of IDR 600,000 to IDR 800,000 per m². Some people are able to manage funds well such as buying back land, livestock, or business investment. However, vulnerable groups tend to allocate funds for consumption.

Physical Assets: There has been a significant increase in the form of permanent homes and motor vehicles. Some residents-built houses at independent relocation locations or those facilitated by Pertamina.

Social Assets: Social fragmentation begins to occur due to the displacement of residence. Social activities such as recitation and mutual cooperation have decreased in intensity. However, some residents are trying to form a new community in the relocation site.

4.3 Life Recovery Program by PT Pertamina

PT Pertamina runs various CSR-based recovery programs, including:

1. **Job Opportunities:** During the construction phase, there were 27,750 job vacancies with a target of 60% for local workers.

Table 3. Projection of Local Labor Needs in the Construction Stage

Job Type	Total Amount	Local Estimation
Welder	1.200	720
Fitter	1.200	720
Safety Man	400	240
Non-skill Labor	23.125	13.875
Total	27.750	16.065

1. **Education Scholarship:** A total of 47 students from ring I received educational scholarships at Akamigas Cepu.
2. **Environment:** 20,000 cypress seedlings were planted on the Jenu coast in collaboration with the Mangrove Center Foundation.
3. **Insurance and Aquaculture:** Life insurance premium assistance and fish farming training were provided to 552 fishing families.

4.4 Community Impact Evaluation and Adaptation

In general, land-owning communities have experienced an increase in welfare, while farmers and farm workers face recovery challenges. The change in assets shows that CSR programs have had a positive impact but have not reached all levels of society equally. There needs to be a continuation of mentoring programs, entrepreneurship training, and financial support so that recovery is long-term and sustainable.

5. Discussion

The findings of this study underscore the multifaceted consequences of large-scale infrastructure projects, particularly in rural settings where land acquisition disrupts well-established socio-economic structures. Using the Sustainable Livelihoods Framework (SLF) as a lens, this discussion explores how the Tuban Oil Refinery project influenced each of the five livelihood assets and assesses the adequacy of mitigation strategies.

5.1 Human Capital

The displacement process disproportionately affected individuals with limited education and skillsets. The low educational attainment—where a significant portion of residents only

completed elementary school—limited their ability to transition into alternative employment, particularly those requiring technical expertise or literacy. This aligns with findings by Anissa (2020), who noted that education level is a key determinant of post-displacement resilience. Although PT Pertamina initiated scholarships and training programs, the scale and accessibility of these initiatives remained limited.

5.2 Natural Capital

The loss of productive agricultural land and grazing fields significantly impacted local food systems and livelihoods. Residents lost access to fertile land, water sources, and biodiversity, which had previously sustained both crop cultivation and livestock rearing. Such degradation of natural capital is not easily reversible and often results in long-term ecological imbalance (Schneider et al., 2020). The environmental offset programs, including reforestation and mangrove planting, were valuable but insufficient to restore lost ecological functions.

5.3 Financial Capital

While many households received substantial financial compensation, disparities emerged in how funds were managed. Households with prior business experience or financial literacy used compensation to purchase new land or start enterprises. In contrast, vulnerable households tended to exhaust the funds on non-productive spending, echoing previous research on compensation inefficacy in structurally disadvantaged communities (Kustiningsih, 2017; Cernea, 2000). This suggests the need for targeted financial planning assistance as part of any compensation scheme.

5.4 Physical Capital

An immediate and visible change post-compensation was the improvement in physical capital. Many households upgraded their homes, purchased vehicles, or built new residences in relocation areas. However, such investments, while visually substantial, did not always correspond to improved livelihoods. In some cases, the new homes were located far from economic centers or arable land, increasing transportation costs and reducing agricultural productivity. Thus, while physical capital increased, its functional value varied.

5.5 Social Capital

Perhaps the most critical yet overlooked impact was on social capital. Relocation fractured long-standing communal bonds and disrupted traditional social networks such as religious groups, farming cooperatives, and neighborhood associations. As Putnam (2000) suggests, social cohesion is vital for building collective resilience. The lack of institutional mechanisms to reforge these connections post-relocation represents a significant gap in the recovery framework.

5.6 Effectiveness of CSR and Livelihood Recovery Programs

PT Pertamina's Corporate Social Responsibility (CSR) efforts addressed various aspects of livelihood recovery, including employment, education, environmental conservation, and health. The employment program during the construction phase provided jobs for thousands of local residents, though uptake was limited by mismatched skills and eligibility criteria. Scholarship programs offered a promising investment in long-term human capital, but they benefited only a small fraction of the affected population.

Environmental programs such as mangrove planting and fishery assistance showed environmental sensitivity but lacked integration with community-based resource management strategies. Moreover, CSR programs generally lacked continuity and community participation in planning, which undermines their sustainability (Bebbington, 1999).

5.7 Policy Implications

This case study reveals that while legal compliance and financial compensation are necessary components of land acquisition, they are not sufficient for sustainable recovery. A more integrated and participatory model is required—one that involves communities in decision-making, aligns compensation with long-term livelihood restoration, and reinforces both formal and informal social structures.

Multi-stakeholder collaboration involving local governments, civil society, and the private sector is essential to monitor, evaluate, and adapt recovery strategies over time. Integrating the SLF into policy and program design can ensure a more nuanced and equitable approach to development-induced displacement.

6. Conclusion

This study has explored the multifaceted impacts of land acquisition for the Tuban Oil Refinery project on community livelihoods, using the Sustainable Livelihoods Framework (SLF) to analyze changes across human, natural, financial, physical, and social capital. The findings show that while financial compensation and infrastructure development provided some short-term benefits, the broader socio-economic and ecological effects were unevenly distributed and often detrimental to the most vulnerable groups. Human capital remained limited due to low education and skill levels, restricting many residents' ability to transition to new employment opportunities. Natural capital suffered significant degradation, with the loss of agricultural land and biodiversity undermining local food systems. While physical capital improved visually through new housing and transportation assets, its functionality was compromised by relocation distances and disconnection from productive environments.

Social capital emerged as the most fragile asset, with relocation disrupting longstanding communal relationships and informal support systems that had sustained rural livelihoods for generations. Financial capital, although temporarily increased through compensation, failed to deliver sustainable economic transformation for households without adequate guidance or capacity-building support. PT Pertamina's CSR programs addressed several dimensions of recovery, including employment, education, and environmental restoration. However, these interventions lacked comprehensive design, participatory planning, and long-term monitoring mechanisms. The absence of inclusive and context-sensitive programming limited the programs' ability to foster lasting resilience.

To ensure more equitable outcomes in future infrastructure development, this study recommends an integrative approach that embeds the SLF into all stages of project planning and implementation. Active participation from affected communities, transparent compensation frameworks, sustained mentoring, and institutional collaboration among government, private

sector, and civil society are essential components for achieving socially just and ecologically responsible development. Ultimately, large-scale projects like the Tuban Oil Refinery must be evaluated not only on their national economic contributions but also on their capacity to protect and enhance the livelihoods of the communities they impact.

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