



Housing Asset Management Innovation: Digitalization and Partnership Strategy in Optimizing Ex-Tanjung Housing in Kutai Kartanegara Regency

Fatima Putri Prativi^{1*}, Anggi Rahajeng¹, Anisa Nurpita¹, Bagaskara¹, Maman Setiawan², Aini²

^{1,2,3,4,5} Universitas Gadjah Mada

⁶ Badan Riset dan Inovasi Daerah Kabupaten Kutai Kartanegara

DOI:

<https://doi.org/10.53697/emak.v6i4.2962>

*Correspondence: Fatima Putri Prativi

Email: fatimaputri94@mail.ugm.ac.id

Received: 22-08-2025

Accepted: 22-09-2025

Published: 22-10-2025



Copyright: © 2025 by the authors. Submitted for open access publication under the terms and conditions of the Creative Commons Attribution (CC BY) license (<http://creativecommons.org/licenses/by/4.0/>).

Abstract: Ex-Tanjung housing complex in Kutai Kartanegara Regency, which was originally intended to provide affordable housing for low-income households but has suffered from irregularities, weak oversight, and misuse. This study aims to identify appropriate strategies for improving the management of these housing assets so they can function sustainably and in accordance with their original purpose. The research employed a mixed-methods approach, combining primary data from focus group discussions, stakeholder mapping, and benchmarking with secondary data from government reports and statistical documents. SWOT analysis and a power-interest grid were applied to evaluate existing conditions and identify key stakeholders and their roles. The findings reveal that the Ex-Tanjung housing complex has strategic potential but is hindered by weak legal frameworks, poor governance, incomplete tenant and asset data, and many uninhabitable units. At the same time, strong housing demand, regulatory support, and opportunities for private sector involvement present avenues for improvement. The study concludes that integrated interventions are required, including regulatory strengthening, tenant regularization, physical rehabilitation, and the establishment of a clear management unit. These measures are essential to revitalize the housing complex and maximize its social and economic benefits.

Keywords: Asset Management, Housing, Local Government

Introduction

Assets are economic resources controlled or owned by the government as a result of past events, and are expected to generate economic and social benefits in the future (Pratiwi, 2022). These assets, whether used directly by the government or utilized by the community, include resources that can be measured in specific units, including non-financial assets that are important for the provision of services to the general public, as well as resources that are preserved for historical and cultural reasons. Assets owned by local governments, particularly infrastructure and facilities, fall under the category of Local Government Assets (BMD) that must be managed economically, effectively, and efficiently to ensure they function properly and provide maximum benefits to the public (Syahputra, 2018). Therefore, continuous evaluation of the BMD management system is necessary to ensure these assets continue to support optimal public services (Lestariningsih, 2024)

The management of regional assets (BMD) plays an important role in government administration, especially in providing services to the community. BMD management is one of the important aspects of regional government administration today in creating good, effective, and efficient governance as well as public accountability (Hasfi & Haryono, n.d.; Mahulae & Sunarti, 2021) (Widiastuti & Risandewi, 2020). Legally, the importance of managing regional fixed assets efficiently, effectively, transparently, and accountably is stipulated in Government Regulation No. 38 of 2008 on the Management of State/Regional Assets, which is further regulated in Ministry of Home Affairs Regulation No. 19 of 2016 on Guidelines for the Management of Regional Government Assets. Local governments must be able to manage BMD appropriately so that these assets can provide benefits for government activities and the broader community. BMD management encompasses a series of processes in managing existing assets as well as those acquired from the Regional Revenue and Expenditure Budget (APBD) or other legitimate sources of acquisition. However, the issue of managing regional assets remains a major problem in regional financial management within the scope of regional government. This is due to the treatment of regional assets that is not in accordance with or does not comply with applicable regulations (Feijar & Priyono, 2023) (Qurani & Narastri, 2023) (Utami et al., 2019). Common issues that frequently arise include insufficient attention to the maintenance and management of regional assets, as well as implementation that does not comply with applicable regulations (Nasution et al., 2022). This is evident from the reports of the State Audit Agency (BPK), which have identified issues in the presentation of fixed assets in regional government financial statements almost every year.

The issue of BMD management in Kutai Kartanegara Regency is a clear example of problems in regional asset management. The issues that arise in BMD management in Kutai Kartanegara Regency are closely related to the lack of compliance with applicable regulations in the field and problems with the presentation of fixed assets in local government financial reports. The ex-Tanjung housing complex is a housing program targeted at Low-Income Households (MBR) in accordance with the objectives outlined in Kutai Kartanegara Regent Regulation No. 16 of 2016. However, an audit conducted by the State Audit Agency (BPK) revealed irregularities in the utilization of these assets. In practice, some houses were rented to unauthorized parties and even sold illegally. The audit also found that only five tenants signed rental contracts in accordance with Regent Regulation No. 16 of 2016, which sets the rental rate at Rp500,000 per month. Most of the other residents did not pay rent, resulting in accumulated arrears totaling Rp2.2 billion. This situation indicates the potential for losses to the local government due to ineffective management and weak oversight of local assets.

Based on these issues, this study aims to identify appropriate strategies for managing ex-Tanjung housing assets in Kutai Kartanegara Regency. With the right strategy, it is hoped that the local government can maximize the function and benefits of these housing assets in accordance with their original purpose, while also increasing local revenue from these assets.

Methodology

This study employs two primary types of data—primary and secondary—to support a comprehensive analysis. Primary data were obtained through Focus Group Discussions (FGDs) and benchmarking, with a benchmarking case study conducted at the Department of Public Works and Housing (DPUPK) of Yogyakarta City, specifically in the context of implementing land consolidation housing in Terban Village. The purpose of this benchmarking activity was to examine best practices and challenges encountered in similar programs, as suggested by (Li et al., 2016) in their research on prefabricated housing and SWOT-based decision-making in the housing sector.

In addition, the primary data include stakeholder identification and mapping (stakeholder mapping), which were gathered through FGDs and in-depth interviews. This process was designed to support the development of a power-interest grid illustrating the position, role, and management strategies of each stakeholder in the context of Ex-Tanjung housing asset management. This approach aligns with (Kaganova & Telgarsky, 2018), who emphasized the importance of multi-actor engagement in the housing sector through SWOT analysis and strategic interest mapping (Civil Engineering Dimension).

Secondary data consisted of documents, reports, and statistics from various sources, including DPUPK of Kutai Kartanegara Regency, BAPPEDA Kutai Kartanegara, and BPS Kutai Kartanegara. This combination of data provides a more holistic perspective for identifying needs, key actors, and strategies for land consolidation-based housing development in the study area. The approach is consistent with the framework adopted by Halla (2007) in their analysis of strategic urban planning through a SWOT model for urban development in Dar es Salaam.

The data collection techniques applied in this study included literature review, benchmarking, stakeholder mapping, and FGDs, the latter conducted with stakeholders on November 8, 2024. The literature review examined academic references, regulations, official reports, and institutional publications to establish both theoretical and empirical foundations. This approach is consistent with the Kardani-Yazd et al. (2019), which combined literature review and actor mapping in housing policy analysis using the Meta-SWOT model.

Benchmarking at DPUPK Yogyakarta City focused on best practices in housing asset management, aiming to compare and adapt strategies to the local context of Kutai Kartanegara. A similar study was conducted by Wang (2023), who demonstrated how major cities such as Hong Kong addressed housing shortages through modular approaches and transitional housing strategies based on SWOT and strength–weakness mapping.

To complement the primary data, stakeholder mapping was conducted to identify key actors in the management of Ex-Tanjung housing assets. The results of the mapping were analyzed using a power-interest grid, as described by Li et al. (2016), who argued that this tool is effective for guiding engagement strategies and communication in complex asset management projects.

Data analysis employed three main approaches: descriptive statistics, SWOT analysis, and stakeholder mapping. Descriptive statistics were used to present quantitative data, such as demographic profiles and housing demand indicators. SWOT analysis was applied to evaluate strategic conditions and to identify relevant strengths, weaknesses,

opportunities, and threats (Debrunner, 2024; Przesdzink et al., 2022). Meanwhile, stakeholder mapping based on the power-interest grid provided a framework for designing effective engagement strategies and defining stakeholder roles (Bourne & Walker, 2005; Halla, 2007).

By combining qualitative and quantitative approaches, this study not only presents an objective overview of the existing conditions but also develops evidence-based recommendations for policymakers, in line with the evidence-based policy research approach proposed by (Ishtiaq, 2019).

Result and Discussion

Descriptive Statistics

A. General Condition of Ex-Tanjung Housing

1. Existing Conditions

The Ex-Tanjung Housing Complex is located in Mangkurawang Subdistrict, Tenggarong District, Kutai Kartanegara Regency, East Kalimantan, precisely at coordinates 0°22'42.29"S and 116°58'39.37"E. The area covers a land area of 54,100 m² with legal status as Hak Pakai (Right of Use), as recorded in the BHUMI ATR/BPN Interactive Map (2024). The housing complex consists of 220 units divided into 13 blocks (Figure 1).

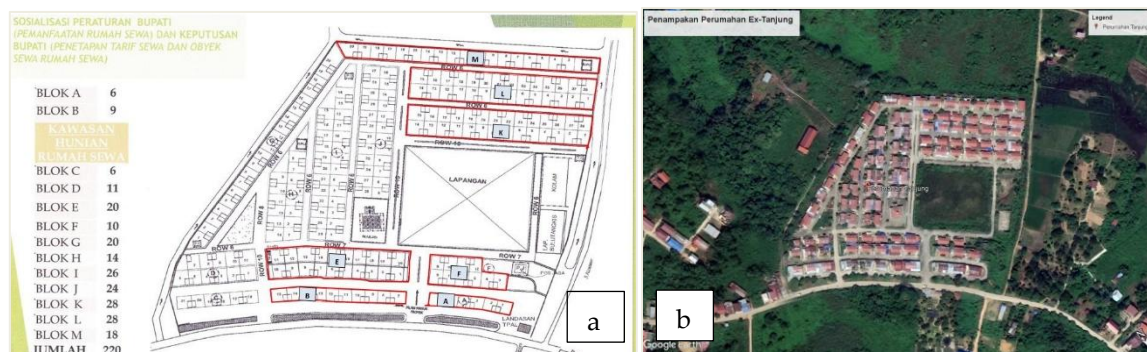


Figure 1. (a) Site plan of the Ex-Tanjung Housing Complex; (b) View of the Ex-Tanjung Housing Complex from Satellite Imagery 2024

Based on 2024 satellite imagery (Figure 1), the surrounding area is still largely dominated by vacant land. Nevertheless, the complex has relatively good accessibility due to its proximity to activity centers, educational facilities, health services, and other public amenities. Visual assessment through Google Street View (Figure 1) also indicates that road infrastructure, access points, and public facilities within the area are in reasonably good condition, supporting both mobility and resident comfort.

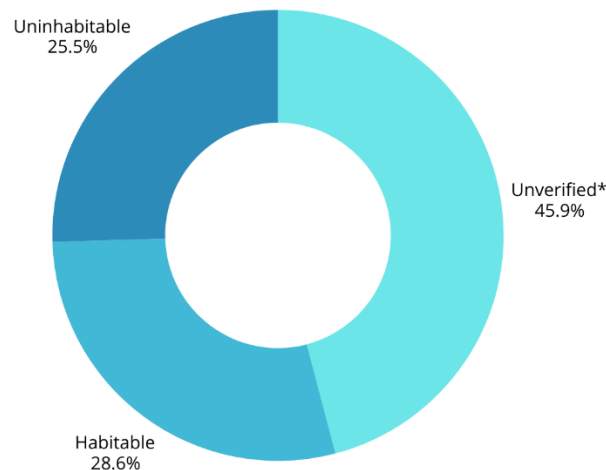


Figure 2. Percentage of Livable Houses Verified in the Field in 2018

Field verification conducted by the Mangkurawang Rental Housing Data Collection and Improvement Team in 2018 (Figure 2) reported that out of the total 220 housing units, only 119 units across seven blocks were successfully verified, while 101 units—or approximately 45.9%—remained unverified. Of those verified, 28.6% were categorized as habitable, 25.5% as uninhabitable, with the remainder lacking confirmed condition status. In addition, basic infrastructure issues were identified, including the removal of 19 electricity meters and 19 water meters by the local water utility (PDAM). These findings suggest that more than half of the housing units either do not meet habitable standards or have yet to be properly assessed.

Overall, the condition of the Ex-Tanjung Housing Complex reflects both strengths and weaknesses. On the positive side, the complex is situated in a strategic location with good accessibility to activity centers and public facilities. Its total land area of 54,100 m² also provides significant potential for future development. Furthermore, the land status under Hak Pakai ensures legal certainty and minimizes the risk of disputes, while road infrastructure and public amenities are considered adequate. On the negative side, however, a considerable proportion of housing units—25.5%—are classified as uninhabitable, while 45.9% remain unverified. The lack of basic utilities, including electricity and water meters, also diminishes the residents' quality of life and highlights the urgent need for substantial improvements.

2. Supply and Demand

On the demand side, the housing needs of low-income households (MBR) in Kutai Kartanegara Regency can be traced through trends in poverty levels and related indicators (Figure 3). Data from the Central Bureau of Statistics (BPS) shows that the number of poor residents in 2019 was recorded at 56,340 people. This figure rose to 62,360 in 2021 before declining to 60,857 in 2023. This trend reflects fluctuations in the economic conditions of the population. The Poverty Depth Index also shows a similar pattern, rising from 0.95 in 2019 to 1.22 in 2021 before falling back to 0.91 in 2023. These fluctuations indicate that the purchasing power of poor households dropped sharply in 2021 but began to recover in 2023.

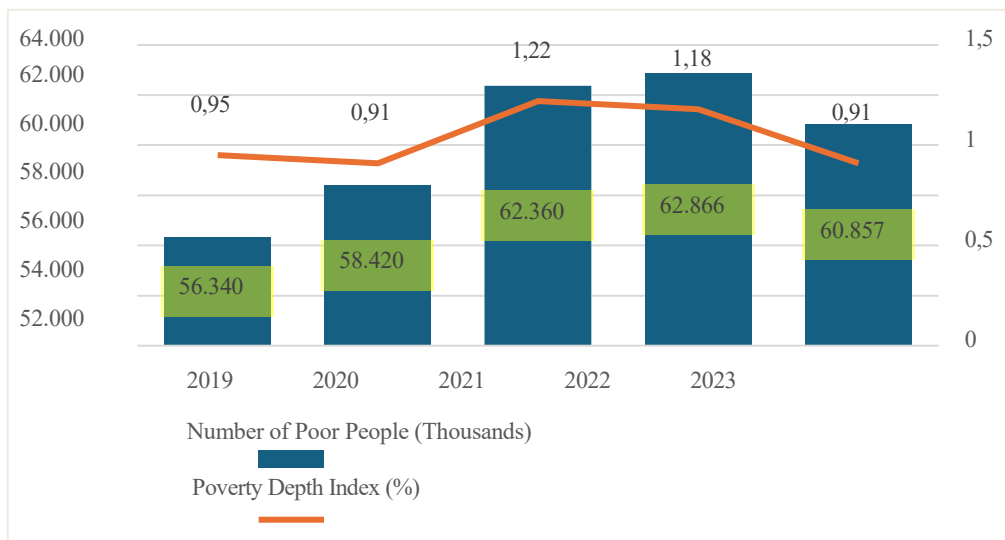


Figure 3. Number of Poor People (Thousands) and Poverty Depth Index P1 (%) in Kutai Kartanegara Regency, 2019-2023

These conditions have significant implications for housing demand among MBR groups. During 2021–2022, housing demand was estimated to be high due to the large number of poor residents, but weak purchasing power posed a major obstacle. Conversely, in 2023, improved purchasing power created greater opportunities for housing access, especially if supported by subsidies or financing assistance programs. Nevertheless, with the number of poor residents still above 60,000, strategic interventions remain necessary to ensure that this group gains access to decent housing.

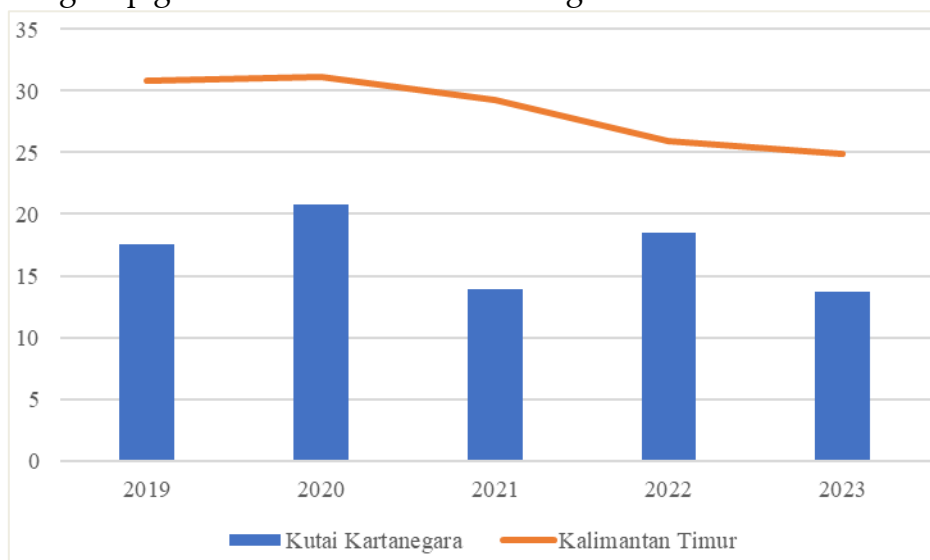


Figure 4. Percentage of Households with Non-Ownership Status of Residential Buildings in Kutai Kartanegara Regency, 2019-2023

Data on homeownership status also reveals a relevant trend (Figure 4). The proportion of households in Kutai Kartanegara occupying non-owned housing peaked in 2020 at 20.83%, before declining to 13.7% in 2023. This figure is relatively lower compared to the East Kalimantan provincial average, which stood at 24.86% in 2023. While the decline

suggests improvements in homeownership access, the 13.7% share still indicates a significant need for decent housing, particularly among MBR groups.

Table 1. Illegal Slum Housing in Kutai Kartanegara Regency in 2022

Type of Hazardous Location	District	Subdistrict/Village	Area (Ha)	Number of Houses (Units)	Number of Households (HH)
Illegal Slum Housing	Anggana	Sungai Mariam	10.36	393	434
	Tenggarong	Lao Ipuh-Melayu-Panji	2.92	124	125
	Tenggarong	Mangkurawang	5.07	203	215
	Tenggarong Seberang	Teluk Dalam	1.98	50	56
	Lao Kulu	Lao Kulu Kota	1.58	50	50
	Muara Jawa	Muara Jawa Pesisir	6.81	239	254
	Samboja	Samboja Kuala	4.20	179	201

Demand for MBR housing is also evident from the persistence of illegal slum settlements across several districts (Table 1). Data from the Housing and Settlement Area Office (2022) recorded 393 slum houses in Sungai Mariam Village (Anggana District), 239 in Muara Jawa Pesisir, 203 in Mangkurawang (Tenggarong), and hundreds more across various locations. This reflects that a portion of the population still resides in inadequate housing due to economic limitations as well as insufficient supply of affordable housing.

On the supply side, the availability of MBR housing in Kutai Kartanegara has shown some development, although it remains limited. Data from the Housing and Settlement Area Office (DPKP) of Kutai Kartanegara shows that 33 property companies are currently developing housing projects in 43 locations. This reflects an active contribution from the private sector in housing provision. However, most developers continue to focus on more profitable commercial projects, meaning that MBR housing often remains a lower priority.

The sizeable housing backlog, as reflected in the prevalence of illegal slum housing, indicates that the current housing supply is still far from meeting demand. Thousands of households continue to live in substandard or slum dwellings, highlighting the need to expand the provision of adequate formal housing for low-income households.

3. Legal

The Ex-Tanjung Housing Complex has a clear legal basis for its management, established through several regulations issued by the Kutai Kartanegara Regency Government. The primary regulation serving as its foundation is Regent Regulation of Kutai Kartanegara No. 16 of 2016 on the Utilization of Rental Housing. This regulation stipulates that the target occupants of rental housing consist of program-targeted communities and non-program or general communities. Program-targeted communities include groups affected by public interest development projects, natural disasters, spatial planning

enforcement, or other similar conditions. Meanwhile, non-program or general communities refer to low-income households (MBR) that meet the eligibility requirements for occupancy.

The rental application procedures are detailed, covering administrative requirements as well as the application process that prospective tenants must follow. The rental agreement is valid for one year and may be extended if the tenant continues to meet the eligibility criteria. The agreement specifies the identities of both parties, rental fees, lease period, rights, obligations, and applicable prohibitions. In addition, the regulation sets forth the mechanism for calculating the base rental tariff, which is determined based on land area, building size, market value, and residual building value. The final rental tariff is established through an official decree issued by the Regent of Kutai Kartanegara.

In 2017, the Kutai Kartanegara Regency Government issued Regent Regulation No. 10 of 2017, which amended the previous regulation. The amendments primarily concerned the terminology "SKPD" (Regional Work Unit), which was replaced with "OPD" (Regional Apparatus Organization), and had implications for the rental payment system, as payments must now be made through the receiving treasurer of the relevant technical OPD.

Beyond these two regulations, housing management policies have also been reinforced through the Strategic Plan of the Housing and Settlement Area Office of Kutai Kartanegara Regency for 2021–2026. This document emphasizes housing construction and rehabilitation policies for disaster victims as well as for communities relocated under local government programs. The policy directions outlined include data collection, public outreach, construction, rehabilitation, distribution, and guidance on the management of public and special housing. However, the document does not specifically mention the improvement or management of the Ex-Tanjung Housing Complex.

Furthermore, the Medium-Term Regional Development Plan (RPJMD) of Kutai Kartanegara Regency for 2021–2026 also addresses the management and financial structuring of regional assets. This is particularly important as the Ex-Tanjung Housing Complex is classified as a regional asset that currently requires serious attention. Strengthening asset management is considered crucial to support sustainable regional development and to promote more transparent and accountable governance.

4. Potential Demand for Programmed Housing

The demand for rental housing among program-targeted communities in Kutai Kartanegara Regency is relatively high. These targeted groups include those affected by public interest development projects, natural disasters, spatial planning enforcement, or other similar conditions as stipulated in Regent Regulation of Kutai Kartanegara No. 16 of 2016 on the Utilization of Rental Housing. Accordingly, rental housing such as the Ex-Tanjung complex was essentially designed to serve as a housing solution for communities impacted by such conditions.

According to data from the Central Bureau of Statistics (BPS) in 2021 (Table 2), as many as 84 villages or urban wards in Kutai Kartanegara Regency experienced natural disasters. Of this total, 71 were affected by flooding and 13 by landslides. The frequent flooding is generally caused by rainwater flow from upstream areas with higher topography

toward downstream regions. Meanwhile, landslides are triggered by a combination of factors, including high rainfall, mining activities, riverbank erosion, and unstable soil conditions.

Table 2. Number of Natural Disasters in Villages/Subdistricts in Kutai Kartanegara Regency in 2021

District	Number of Villages/Subdistricts Affected by Flood	Number of Villages/Subdistricts Affected by Earthquake	Number of Villages/Subdistricts Affected by Landslide
Samboja	5	-	2
Muara Jawa	-	-	-
Sanga-Sanga	2	-	1
Loa Janan	3	-	-
Loa Kulu	-	-	-
Muara Muntai	-	-	-
Muara Wis	2	-	-
Kota Bangun	1	-	-
Tenggarong	10	-	4
Sebulu	5	-	2
Tenggarong Seberang	12	-	2
Muara Badak	1	-	-
Marang Kayu	5	-	-
Muara Kaman	4	-	-
Kenohan	2	-	1
Kembang Janggut	2	-	-
Tabang	13	-	1
Total	71	-	13

This situation underscores the high demand for relocation housing or temporary housing for disaster-affected communities. The loss of homes due to floods or landslides creates an urgent need for safe and livable housing. On the other hand, the Kutai Kartanegara Regency Government has formulated a policy framework to address these issues through the Strategic Plan of the Housing and Settlement Area Office for 2021–2026. This document outlines policy directions that include data collection, public outreach, construction, rehabilitation, and distribution of housing for disaster victims and communities relocated by regency or municipal programs.

With this policy in place, the local government is expected to provide proper housing for program-targeted communities affected by disasters or development initiatives. However, implementation remains a challenge, given the high frequency of disasters and the limited availability of existing housing.

B. Problem Identification

The Ex-Tanjung Housing Complex in Kutai Kartanegara Regency, which has been in use since 2016, faces a number of issues across legal, physical, economic, and governance aspects. These problems were identified through Focus Group Discussions (FGDs) with relevant stakeholders as well as a review of secondary data.

From the legal aspect, the main issue is the absence of an inventory of tenant data and ownership status for each housing unit. This has created uncertainty regarding rightful occupancy and asset management. Furthermore, although the housing was officially designated as rental units with leasehold status, there are indications of asset misuse, including illicit buying and selling of units and the conversion of leasehold rights into ownership rights. In addition, the majority of current occupants are not the intended beneficiaries as defined in Regent Regulation of Kutai Kartanegara No. 16 of 2016, thereby undermining the original objective of providing rental housing for targeted groups.

From the physical aspect, a number of units have been structurally altered by occupants, deviating from the original design. Of the 220 units, 45.9% have yet to be condition-verified, while 25.5% are categorized as uninhabitable due to basic infrastructure issues such as missing electricity and water meters. This reflects weak asset maintenance and insufficient oversight by the authorities.

From the economic aspect, information on the value of the Ex-Tanjung Housing assets is unclear, including historical data on unit rental transactions. This situation complicates regional financial reporting and policy-making based on asset value. Moreover, there are indications that first-hand tenants have sublet the units to third parties. Consequently, when the local government bills the actual occupants for rent, they claim to have already paid the first tenant, while the payment is never remitted to the government. Such practices cause financial losses for the region and exacerbate administrative disorder.

From the governance aspect, the main problem is the absence of a dedicated service or management unit responsible for overseeing the Ex-Tanjung Housing. Weak supervision has resulted in violations such as illegal occupancy and asset misuse. Furthermore, enforcement from stakeholders remains minimal, allowing violations to persist without firm sanctions. Another issue is the lack of specific budget allocation for the management and maintenance of the housing in the Strategic Plan of the Housing and Settlement Area Office of Kutai Kartanegara Regency, despite this agency being the one that developed the asset.

The current situation shows that the root problems of the Ex-Tanjung Housing are largely caused by tenant misconduct and misuse of assets, compounded by weak governance systems. The greatest challenges ahead include regularizing tenant status in line with regulatory targets, revitalizing damaged physical assets, conducting asset valuation as a basis for determining fair rental rates, and reforming asset management through the involvement of law enforcement and structured provision of basic utilities.

C. Challenge Identification

From the legal aspect, the main challenge lies in accurately tracing and identifying the status of tenants. The absence of complete tenant data makes it difficult to determine who is legitimately entitled to occupy the housing units. In addition, enforcement measures are required to ensure that occupants align with the intended target groups as stipulated in Regent Regulation of Kutai Kartanegara No. 16 of 2016. Rule enforcement is fundamental to restoring the housing's original function as temporary accommodation for specific community groups.

From the physical aspect, the greatest challenge is revitalizing housing units that have suffered damage and restoring buildings to their original design. Physical modifications made by previous occupants have violated regulations and risk lowering the overall quality of the residential environment. Furthermore, supporting facilities in line with the Minimum Service Standards (SPM) set by the Public Works Office are still needed to ensure that the housing functions properly as a livable settlement.

From the economic aspect, the challenge involves conducting proper asset valuation—both per unit and collectively—for the purposes of regional financial reporting. These asset values are also essential as the basis for determining fair and measurable rental rates. In addition, structured and periodic recording of rental payments must be implemented to prevent further revenue leakage caused by uncontrolled subletting practices.

From the governance aspect, the primary challenge is strengthening asset security and enforcement. The local government must involve law enforcement agencies to address misuse and violations. Improving asset management is also an urgent need, whether through the establishment of a dedicated unit or by adopting a more professional mechanism for managing these rental houses. Moreover, the provision of basic utilities such as electricity and clean water should be tied to tenant compliance in paying monthly rental fees, thereby creating a more disciplined and sustainable system.

In summary, the challenges in managing the Ex-Tanjung Housing complex extend beyond physical rehabilitation of the buildings; they also encompass regulatory reform, strengthening the economic system of asset management, and enforcing transparent and firm governance.

D. Potential Identification

From the legal aspect, the existence of Regent Regulation No. 16 of 2016 has provided a clear legal foundation for the utilization of rental housing, covering target residents, procedures, and rental rates. In addition, the regulation also governs rental payment systems and contract evaluations, which, if implemented consistently, can create a more orderly governance structure.

From the physical aspect, the Ex-Tanjung Housing complex has the advantage of a strategic location in the capital area of Kutai Kartanegara Regency, situated in a flood-free zone with minimal risk of natural disasters. Road infrastructure and public facilities in the surrounding area are also relatively well-developed. Furthermore, the land area of 54,100

m² offers opportunities for further development, whether through the addition of housing units or the construction of supporting facilities.

From the economic aspect, the demand for housing among low-income households (MBR) remains very high in Kutai Kartanegara, with more than 60,000 people living below the poverty line. Moreover, there are still communities residing in illegal slum housing who are in need of proper accommodation. The Ex-Tanjung Housing complex has the potential to be rented out not only to MBR groups but also commercially to the general public (non-MBR and non-affected households). Uncollected rental arrears from the past five years also hold potential as an additional source of Regional Own-Source Revenue (PAD). Alongside the improvement in purchasing power among low-income residents in 2023, subsidized housing programs could make a significant contribution to enhancing community welfare.

From the governance aspect, the Kutai Kartanegara Regency Government has the authority to establish a Regional-Owned Enterprise (BUMD) or a Technical Implementation Unit (UPT) as a dedicated manager of this housing asset. Furthermore, several stakeholders such as PDAM and PLN have already established cooperation for utility provision, ensuring relatively reliable access to clean water and electricity.

E. Opportunity Identification

In addition to internal potential, there are also opportunities that can be utilized. From the legal aspect, the Ex-Tanjung Housing assets have been registered as Regional Government-Owned Assets (BMD), giving them relatively strong legal standing. Moving forward, the government may strengthen the legal foundation through the issuance of new regulations (Regent Regulations or Regional Regulations) regarding user justification, designation, and asset governance.

From the physical aspect, the area can be further developed with the addition of public facilities such as sports centers, places of worship, and green open spaces, thereby improving residents' quality of life. Organizing the surrounding area also opens opportunities to form a better-structured and more cohesive community.

From the economic aspect, there is potential for collaboration with 33 property companies currently active in developing housing across 43 locations in Kutai Kartanegara. Utilization cooperation (KSP) or operational cooperation (KSO) with the private sector can be pursued to support housing management and revitalization. In addition, Corporate Social Responsibility (CSR) funding from companies can also be leveraged for facility improvements as well as socio-economic development programs for residents.

From the governance aspect, major opportunities lie in leveraging digital technology within the management system, such as rental booking applications or online payment systems. Clear division of authority between managers, law enforcement, and utility providers can enhance compliance in rent payments. A bundling scheme that combines rent with utilities (electricity and water) can also be implemented, so that tenants who fail to meet their obligations can immediately be subject to service disconnection. If this management system operates effectively, it will not only improve asset management

efficiency but also enhance the local government's image in providing housing solutions for the community.

SWOT Analysis

The Ex-Tanjung housing complex demonstrates several strategic strengths that can serve as a foundation for revitalization efforts. Its location in the capital area of Kutai Kartanegara Regency provides accessibility and spatial advantages that align with urban development principles emphasizing the importance of location in housing strategies (Porter, 2008). The area is also classified as flood-free, with relatively good infrastructure and public facilities that enhance livability. In addition, rental payment and contract evaluation are already regulated, providing a basic governance framework on which more comprehensive management systems can be built (Clapham, 2018). The growing demand for adequate housing among low-income households, together with gradually improving purchasing power, further reinforces the relevance of this asset to the region's housing needs (Liu et al., 2022). Moreover, the local government possesses the legal authority to establish a dedicated asset management unit, while several stakeholders have already engaged in collaborative provision of utilities, strengthening the institutional foundation for future interventions.

Despite these advantages, significant weaknesses currently undermine the optimal functioning of the complex. A major challenge is the absence of accurate data regarding tenants and ownership status, which results in weak oversight and frequent misuse of housing units, including unauthorized sales and modifications. Approximately 25.5% of the houses are classified as uninhabitable due to infrastructure deficiencies such as missing water and electricity meters, reflecting patterns of physical neglect that diminish the viability of public housing (Liu et al., 2022). Compounding these issues is the lack of a clear management unit responsible for day-to-day oversight, which leads to fragmented responsibilities and a lack of enforcement against asset misuse. These weaknesses mirror international findings on how fragmented housing governance reduces transparency and undermines accountability (Clapham, 2018).

At the same time, several external opportunities provide scope for significant improvement. The legal status of the complex as a registered regional asset (BMD) enables the formulation of new regulations to strengthen asset justification and management. Furthermore, the inclusion of housing revitalization within the Regional Medium-Term Development Plan (RPJMD) 2025–2030 would institutionalize housing improvement in the broader policy framework (Porter, 2008). External investment opportunities also exist, particularly through partnerships with private enterprises or the utilization of Corporate Social Responsibility (CSR) funds, which are increasingly employed to support public asset management (Gavrikova et al., 2020). Additionally, the development of new community facilities—such as green spaces, places of worship, or recreational infrastructure—could enhance the quality of life of residents and contribute to social integration.

Nevertheless, the project faces potential threats that could compromise revitalization. Chief among these is the challenge of tenant identification and eviction, which may create

social conflict if not handled carefully. Resistance to the enforcement of regulations is also a risk, particularly given the historical weakness of supervision in the housing sector. Moreover, the absence of standardized asset valuation and structured rent collection mechanisms undermines the financial sustainability of the asset, a concern similarly identified in other public asset management cases (Gavrikova et al., 2020). Failure to comply with minimum service standards further threatens public trust in the government’s capacity to provide adequate housing.

Table 3. SWOT Matrix of Ex-Tanjung Housing Asset Management

Internal Factors	Opportunities (O)	Threats (T)
Strengths (S)	SO Strategies	ST Strategies
	1. Develop digital tenant & asset database.	1. Conduct awareness and education for tenants.
	2. Leverage strategic location for community-based revitalization.	2. Enforce rules through structured selection and monitoring.
	3. Implement human-centered and bundled rental management schemes.	3. Use existing regulatory framework to strengthen asset security.
Weaknesses (W)	WO Strategies	WT Strategies
	1. Draft new regulations (Perda/Perbup) to clarify asset use.	1. Conduct verification and GIS-based monitoring of tenants and units.
	2. Establish dedicated management unit (BUMD/UPT).	2. Enforce rental collection and arrears settlement.
	3. Strengthen stakeholder coordination and integrate technology in management.	3. Introduce fair retribution scheme for LIH households.

To address these dynamics, four strategic directions can be formulated (Table 3).

1. SO Strategies (Leveraging Strengths to Captivate Opportunities)

The establishment of a digital tenant and asset database is a fundamental step to improving oversight and decision-making. Research has shown that Social Housing Management Information Systems (SHMIS) significantly enhance housing governance by enabling accurate tracking of tenants and property conditions (Muczyński et al., 2019). With Ex-Tanjung’s strategic location and strong infrastructure, there is also scope for community-based revitalization, which aligns with best-practice frameworks for social housing asset management that stress community integration as a driver of long-term sustainability (Sharam et al., 2021). Moreover, adopting human-centered and bundled rental schemes can improve affordability and service delivery, echoing findings that tenant-oriented policies foster stability and enhance perceived housing value (Kenley et al., 2009).

2. ST Strategies (Using Strengths to Mitigate Threats)

Using strengths to reduce threats involves combining regulation with education. Implementing tenant awareness and education programs can minimize conflict and misuse

of housing, as similar programs in public housing schemes have proven effective in increasing compliance and reducing disputes (Gruis et al., 2009). Strengthening structured tenant selection and monitoring mechanisms also ensures transparency and fairness, reflecting best practices in public housing allocation (Pawson & Hulse, 2011). Finally, reliance on the existing legal framework to safeguard housing assets is consistent with global evidence that legal clarity is critical for preventing misuse and ensuring the security of public-sector housing (Yates, 2013).

3. WO Strategies (Addressing Weaknesses Through Opportunities)

Overcoming weaknesses requires capitalizing on regulatory and institutional opportunities. Drafting new local regulations (Perda/Perbup) to clarify asset use and accountability aligns with recommendations from comparative studies of social housing that emphasize strong governance structures for asset longevity (Pawson & Hulse, 2011). Establishing a dedicated asset management unit (BUMD/UPT) will further centralize accountability and professionalism, echoing global moves toward specialized housing management entities for more efficient service delivery (Lennartz, 2011). Furthermore, strengthening stakeholder coordination through digital and GIS technologies will modernize asset monitoring. Scholars argue that integrating GIS with housing management allows real-time spatial tracking, improves efficiency, and reduces risks of misuse (Ma & Ren, 2017).

4. WT Strategies (Weakness–Threat Mitigation)

Addressing weaknesses in the face of external threats demands rigorous monitoring. Conducting tenant verification with GIS-based systems provides a structured approach to monitoring occupancy and physical conditions, as demonstrated in recent property management applications (Dawidowicz & Dudzińska, 2022). Introducing enforced rental collection and arrears recovery mechanisms can ensure financial sustainability, echoing housing asset management studies that highlight the risk of financial losses when rent systems are unstructured (Gruis et al., 2009). Finally, implementing a fair retribution tariff scheme for low-income households can balance affordability with operational viability. Evidence shows that needs-based pricing models in social housing help sustain revenue without excluding vulnerable households (Morris et al., 2017).

Stakeholder Mapping (Power-Interest Grid)

The first stage in the stakeholder mapping method is the identification of actors who are involved in, or have influence over, the management of Ex-Tanjung housing assets. This identification is crucial for understanding the power structures and interests that interact within the decision-making process (Zerjav et al., 2021). Data were collected through Focus Group Discussions (FGDs) involving key stakeholders such as the Housing and Settlement Agency (DPKP), the Regional Development Planning Agency (BAPPEDA), the Regional Finance and Asset Agency (BKAD), and representative community members. This process was further supported by a document review, including local regulations, audit findings from BPK, and technical reports such as the RPJMD and sectoral strategic plans.

Each identified stakeholder was then assessed according to two primary dimensions: the level of power and the level of interest in asset management issues. This approach has been widely applied in sustainable development and social infrastructure projects (Hansen et al., 2009). The evaluation used an ordinal scale ranging from 1 to 4, with the following criteria:

1. Power: the extent to which a stakeholder has authority, regulatory capacity, or direct influence on asset management decisions.
2. Interest: the degree to which a stakeholder is affected by asset management and the extent of their engagement in the process.

The final score was calculated by multiplying the power and interest values for each stakeholder. Based on this, stakeholders were categorized into four strategic priorities (Olanrewaju & Abdul-Aziz, 2015):

1. Score 16 (4x4): highly important stakeholders requiring full involvement in all decision-making processes.
2. Score 9–12: important stakeholders to be consulted regularly and engaged during implementation.
3. Score 5–8: moderately important stakeholders who should be informed and given limited participation.
4. Score < 4: less important stakeholders who only need monitoring or occasional updates.

The use of the Power-Interest Grid enables a clear visualization of stakeholder positions (Figure 4), consistent with best practices in asset and social project management (Hosseinihaghighi et al., 2022):

1. High Power – High Interest: DPKP and BAPPEDA.
2. High Power – Low Interest: BKAD and the regional parliament (DPRD).
3. Low Power – High Interest: Low-Income Households (MBR) and housing NGOs.
4. Low Power – Low Interest: other government agencies (OPDs) not directly involved and the general public.

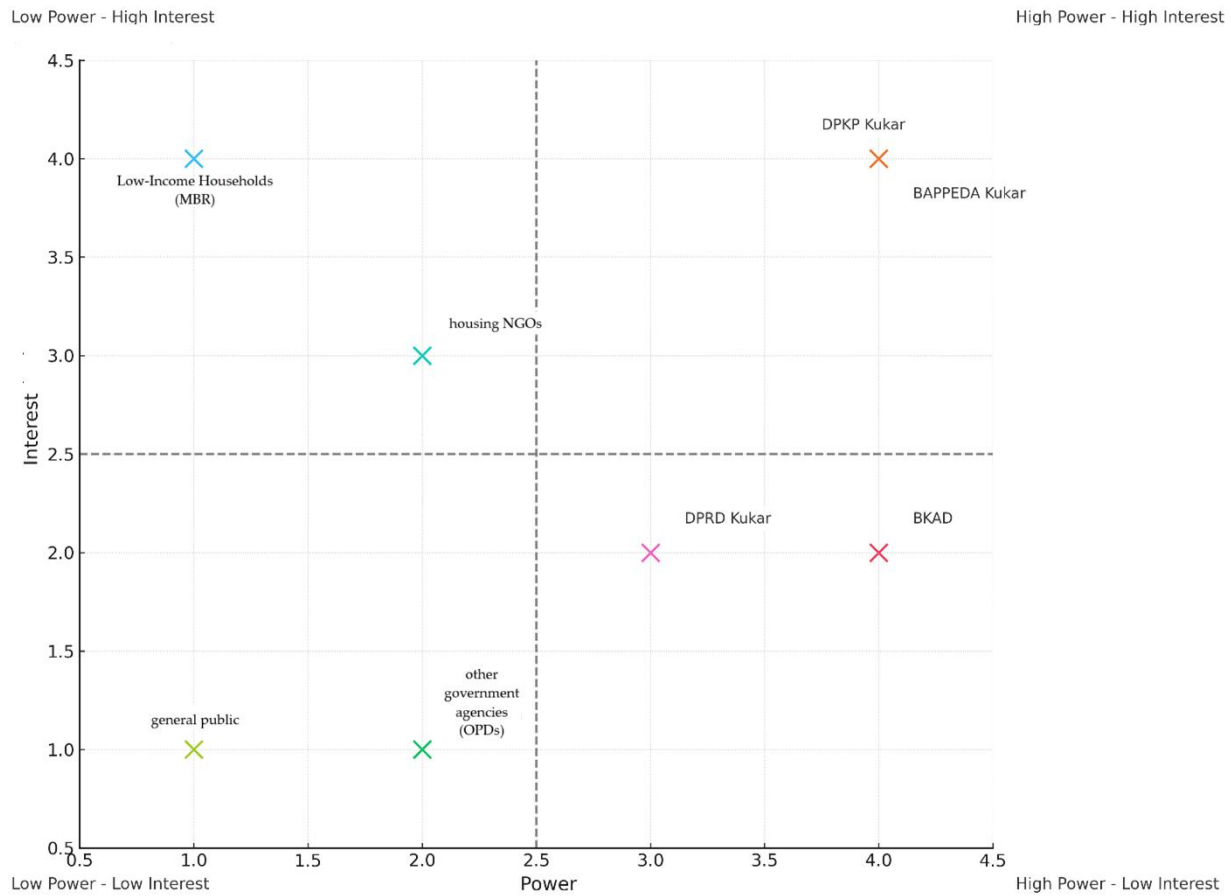


Figure 4. Power-Interest Grid

The mapping (Figure 4) results are as follows:

1. Quadrant I: Low Power – High Interest (Engage and Educate)

Stakeholders such as low-income tenants (MBR) fall into this category. They are the most affected by housing asset management and thus highly interested in the process. However, lacking decision-making power, the appropriate strategy is to involve and educate them to ensure that policies reflect their needs (Cheng et al., 2022).

2. Quadrant II: High Power – High Interest (Manage Closely)

Key actors such as DPKP and BAPPEDA belong here. With strong authority and high relevance, they must be engaged intensively in planning, implementation, and evaluation to ensure project success (Hansen et al., 2009).

3. Quadrant III: High Power – Low Interest (Keep Satisfied)

DPRD and BKAD are influential actors with limited direct involvement in technical management. Their roles in budget approval, fiscal policy, and regulation require that they be kept informed and involved at strategic points to maintain support.

4. Quadrant IV: Low Power – Low Interest (Monitor)

Stakeholders such as the general public and other OPDs have minimal influence and limited interest. Monitoring and occasional updates are sufficient unless future conditions demand more involvement.

5. Central Role: Potential Actors

Housing NGOs occupy an intermediary position, bridging government and communities. They may serve as advocates for vulnerable groups, amplifying the voices of low-income tenants (King & Locock, 2022).

Understanding stakeholder positions in the Power-Interest Grid allows tailored communication and collaboration strategies. This alignment minimizes conflict, strengthens synergy, and enhances the sustainability of Ex-Tanjung housing asset management. The application of stakeholder mapping is particularly relevant given overlapping authorities, weak oversight, and unclear coordination mechanisms highlighted in BPK audits and field findings. Structured stakeholder analysis helps design more effective engagement strategies, including the designation of a leading sector, multi-stakeholder coordination, the formulation of new local regulations (Perbup/Perda), and robust monitoring of rental schemes for both low- and non-low-income households.

Conclusion

This study shows that the Ex-Tanjung Housing complex holds strategic potential as a residence for low-income households (MBR) and communities affected by development programs or disasters, yet its current condition is far from optimal. The main issues lie in weak legal and governance frameworks, the absence of accurate data on tenants and assets, and the large number of uninhabitable units. The high demand for affordable housing, regulatory support, and opportunities for private sector partnerships create space for revitalization and improved management. Therefore, integrated interventions are needed through regulatory strengthening, tenant regularization, physical rehabilitation, and the establishment of a clear management unit to ensure that this asset functions sustainably and in line with its original purpose.

Practical recommendation for the government are strengthen regulatory frameworks, develop tenant regularization and data management, physical rehabilitation and upgrading, establish a dedicated management unit, promote Public-Private Partnerships and provide community engagement and capacity building. The future research should explore comprehensive economic evaluations and explore comparative analyses of housing asset management models.

References

- Bourne, L., & Walker, D. H. T. (2005). Visualising and mapping stakeholder influence. *Management Decision*, 43(5), 649–660.
- Cheng, J., Zhao, J., Zhu, D., Jiang, X., Zhang, H., & Zhang, Y. (2022). Land marketization and urban innovation capability: Evidence from China. *Habitat International*, 122, 102540.
- Clapham, D. (2018). *Remaking Housing Policy: An International Study* (1st ed.). Routledge.
- Dawidowicz, A., & Dudzińska, M. (2022). The Potential of GIS Tools for Diagnosing the SFS of Multi-Family Housing towards Friendly Cities—A Case Study of the EU Member State of Poland. *Sustainability*, 14(11), 6642.

- Debrunner, G. (2024). Selecting Switzerland. In G. Debrunner, *The Business of Densification* (pp. 87–116). Springer Nature Switzerland.
- Feijar, F., & Priyono, B. (2023). Pengelolaan Aset Daerah Berupa Tanah Dan Bangunan Sebagai Salah Satu Sumber Pendapatan Asli Daerah Pemerintah Kota Depok. *Journal of Business Administration Economics & Entrepreneurship*, 73–84.
- Gavrikova, E., Volkova, I., & Burda, Y. (2020). Strategic Aspects of Asset Management: An Overview of Current Research. *Sustainability*, 12(15), 5955.
- Gruis, V., Tsenkova, S., & Nieboer, N. (Eds.). (2009). *Management of privatised housing: International policies & practice*. Wiley-Blackwell Pub.
- Halla, F. (2007). A SWOT analysis of strategic urban development planning: The case of Dar es Salaam city in Tanzania. *Habitat International*, 31(1), 130–142.
- Hansen, E. G., Grosse-Dunker, F., & Reichwald, R. (2009). Sustainability Innovation Cube – A Framework To Evaluate Sustainability-Oriented Innovations. *International Journal of Innovation Management*, 13(04), 683–713.
- Hasfi, N., & Haryono, D. (n.d.). *MANAGEMENT OF REGIONAL ASSET (A Study in Department of Revenue, Finance and*.
- Hosseinihaghighi, S., Panchabikesan, K., Dabirian, S., Webster, J., Ouf, M., & Eicker, U. (2022). Discovering, processing and consolidating housing stock and smart thermostat data in support of energy end-use mapping and housing retrofit program planning. *Sustainable Cities and Society*, 78, 103640.
- Ishtiaq, M. (2019). Book Review Creswell, J. W. (2014). *Research Design: Qualitative, Quantitative and Mixed Methods Approaches* (4th ed.). Thousand Oaks, CA: Sage. *English Language Teaching*, 12(5), 40.
- Kaganova, O., & Telgarsky, J. (2018). Management Of Capital Assets By Local Governments: An Assessment And Benchmarking Survey. *International Journal of Strategic Property Management*, 22(2), 143–156.
- Kardani-Yazd, N., Kardani-Yazd, N., & Mansouri Daneshvar, M. R. (2019). Strategic spatial analysis of urban greenbelt plans in Mashhad city, Iran. *Environmental Systems Research*, 8(1), 30.
- Kenley, R., Chiazor, M., & McNelis, S. (2009). *Towards best practice for public housing asset management*.
- King, S., & Locock, K. E. S. (2022). A circular economy framework for plastics: A semi-systematic review. *Journal of Cleaner Production*, 364, 132503.
- Lennartz, C. (2011). Vincent Gruis, Sasha Tsenkova & Nico Nieboer (eds), *Management of privatised housing: International policies & practice*: Blackwell Publishing, Chichester, 2009, 288 pp, ISBN 978 1 4051 8188 4. *Journal of Housing and the Built Environment*, 26(3), 389–391.
- Lestariningsih, W. S. (2024). Analisis Implementasi Kebijakan Pengelolaan Barang Milik Daerah di Kota Tangerang Selatan. *Jurnal Pembangunan Nagari*, 9(2), Article 2.
- Li, C. Z., Hong, J., Xue, F., Shen, G. Q., Xu, X., & Luo, L. (2016). SWOT analysis and Internet of Things-enabled platform for prefabrication housing production in Hong Kong. *Habitat International*, 57, 74–87.

- Liu, S., Li, Z., Teng, Y., & Dai, L. (2022). A dynamic simulation study on the sustainability of prefabricated buildings. *Sustainable Cities and Society*, 77, 103551.
- Ma, Z., & Ren, Y. (2017). Integrated Application of BIM and GIS: An Overview. *Procedia Engineering*, 196, 1072–1079.
- Mahulae, B. P., & Sunarti, S. (2021). Optimalisasi Pengelolaan Rusunawa Di Kota Semarang. *Jurnal Pengembangan Kota*, 9(2), 245–258.
- Morris, A., Hulse, K., & Pawson, H. (2017). Long-term private renters: Perceptions of security and insecurity. *Journal of Sociology*, 53(3), 653–669.
- Muczyński, A., Dawidowicz, A., & Żróbek, R. (2019). The information system for social housing management as a part of the land administration system – A case study of Poland. *Land Use Policy*, 86, 165–176.
- Nasution, D. A. D., Supraja, G., & Damanik, A. F. (2022). Pengukuran Efektivitas Pengelolaan Barang Milik Daerah Dalam Dinas Perumahan & Kawasan Permukiman Kabupaten Deli Serdang. *Warta Dharmawangsa*, 16(3), 613–623.
- Olanrewaju, A. L., & Abdul-Aziz, A.-R. (2015). *Building Maintenance Processes and Practices: The Case of a Fast Developing Country*. Springer Singapore.
- Pawson, H., & Hulse, K. (2011). Policy Transfer of Choice-based Lettings to Britain and Australia: How Extensive? How Faithful? How Appropriate? *International Journal of Housing Policy*, 11(2), 113–132.
- Porter, M. E. (2008). *Competitive Advantage: Creating and Sustaining Superior Performance*. Free Press.
- Pratiwi, Y. R. (2022, March 31). *Pentingnya Penilaian Dalam Pengelolaan Barang Milik Negara*. Djkn.Kemenkeu.Go.Id.
- Przesdzink, F., Herzog, L. M., & Fiebelkorn, F. (2022). Combining Stakeholder- and Social Network- Analysis to Improve Regional Nature Conservation: A Case Study from Osnabrück, Germany. *Environmental Management*, 69(2), 271–287.
- Qurani & Narastri. (2023). Analisis Optimalisasi Pemanfaatan Aset Daerah (Tanah) Untuk Meningkatkan PAD di Kabupaten Sampang. *Jurnal Riset Akuntansi*, 2(1), 72–81.
- Sharam, A., McNelis, S., Cho, H., Logan, C., Burke, T., & Rossini, P. (2021). Towards an Australian social housing best practice asset management framework. *AHURI Final Report*, 367.
- Syahputra, K. (2018). Strategi Peningkatan Pengelolaan Barang Milik Daerah Pada Pemerintah Kabupaten Kepulauan Anambas. *Jurnal Manajemen Pembangunan Daerah*, 10(1), 1–14.
- Utami, R. R., Aliamin, A., & Fahlevi, H. (2019). Analisis Pengelolaan Barang Milik Daerah Pada Pemerintah Daerah Kabupaten Aceh Tengah. *Jurnal Perspektif Ekonomi Darussalam*, 5(2), 124–140.
- Wang, Y. (2023). *A multi-perspective analysis and strategies development of mitigating the housing problem in Hong Kong through adopting modular integrated construction to build transitional houses* [Thesis].

-
- Widiastuti, W., & Risandewi, T. (2020). Strategi Peningkatan Pendapatan Daerah Melalui Pemberdayaan Aset Daerah Di Provinsi Jawa Tengah. *Jurnal Litbang Provinsi Jawa Tengah*, 17(2), 133–145.
- Yates, J. (2013). Evaluating social and affordable housing reform in Australia: Lessons to be learned from history. *International Journal of Housing Policy*, 13(2), 111–133.
- Zerjav, V., McArthur, J., & Edkins, A. (2021). The multiplicity of value in the front-end of projects: The case of London transportation infrastructure. *International Journal of Project Management*, 39(5), 507–519.