



Decent Housing Program Management in East Mimika District: Effectiveness and Targeting Errors

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Abstract

Purpose: This study examines planning realization, implementation effectiveness, inhibiting factors, and beneficiary targeting accuracy in the decent housing program in East Mimika District, funded through APBD, Special Autonomy (*Otonomi Khusus/Otsus*) Funds, and (*Pokok-Pokok Pikiran DPRD*) POKIR, with a case study of 10 housing units in Hiripau Village for the Kamoro indigenous community.

Research Methodology: A qualitative descriptive approach with an intrinsic case study design was employed. Data were collected from 15 purposively selected informants through interviews, observation, and document analysis. Data were analyzed using Miles, Huberman, and Saldaña's interactive model, with credibility established through triangulation and member checking.

Results: The planning process showed weaknesses in beneficiary validation, community participation, and economic verification. Two of ten beneficiaries (20%) were identified as State Civil Apparatus with incomes exceeding the Low-Income Household (LIH) criteria, indicating inclusion errors. Implementation produced technically feasible housing units, but six units (60%) experienced delays of 2–4 weeks and beneficiary involvement in supervision remained limited. The program generated welfare benefits through improved health conditions, reduced household expenses, and enhanced psychological well-being. Key barriers included administrative validation failures, geographic constraints, budget delays, socio-cultural issues, and weak coordination.

Conclusions: The program demonstrated adequate physical implementation effectiveness but insufficient planning quality and beneficiary targeting accuracy.

Limitations: This study is limited to a single village case with 10 beneficiaries, cross-sectional data, and verbal income verification.

Contributions: This study provides empirical evidence on beneficiary targeting errors in Papua's Otsus-funded housing program and recommends digital validation, culturally responsive planning, and participatory monitoring mechanisms.

Keywords: *Beneficiary Targeting, Decent Housing, Inclusion Error, Program Management, Qualitative Case Study*

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1. Introduction

Access to decent housing is a fundamental component of social welfare and represents one of the essential responsibilities of governments in fulfilling citizens' basic needs. Adequate housing is not

only associated with physical shelter but also influences health, security, dignity, and socioeconomic development. In developing regions, housing programs are often implemented as public policy instruments to reduce poverty, improve living conditions, and address inequality among vulnerable communities. Therefore, the effectiveness of government housing programs depends not only on the construction of physical units but also on the quality of planning, implementation mechanisms, and accuracy in identifying eligible beneficiaries ([Syaputra, Prakasita, Aulia, Roring, & Aditama, 2020](#); [Amalya, & Latief, 2023](#)).

In Indonesia, regional governments play an important role in implementing housing development programs as part of decentralization and public service delivery. Government-funded housing assistance is designed primarily for low-income households (*Masyarakat Berpenghasilan Rendah/MBR*) who face limitations in accessing adequate housing independently ([Aryani, 2024](#)). However, previous studies have highlighted that public assistance programs frequently encounter targeting challenges, including inclusion errors where ineligible groups receive benefits and exclusion errors where eligible households are overlooked. These targeting problems may reduce program effectiveness, create unequal resource distribution, and weaken public accountability ([Sari, 2022](#)).

The challenge of beneficiary targeting becomes more complex in geographically and socially diverse regions such as Papua. The implementation of development programs in Papua is influenced by geographical barriers, limited infrastructure, socioeconomic disparities, and the importance of incorporating indigenous community characteristics into public policy planning ([Nisa & Salomo, 2019](#)). Through the Special Autonomy (*Otonomi Khusus/Otsus*) framework, the government has allocated substantial resources to accelerate welfare improvement among indigenous Papuan communities. Consequently, effective governance of Otsus-funded programs requires not only budget absorption and physical output achievement but also transparent planning, participatory implementation, and accurate beneficiary identification ([Gunadi, Kostini, & Alexandri, 2022](#)).

Mimika Regency represents an important context for examining decent housing program management due to its economic potential, geographic diversity, and social heterogeneity. Although Mimika has significant economic resources, particularly from the mining sector, several communities continue to experience challenges related to infrastructure access and housing conditions. In East Mimika District, the decent housing development program was implemented to improve household welfare, including housing provision for the Kamoro indigenous community in Hiripau Village. However, the effectiveness of such programs requires evaluation beyond physical completion, including whether planning processes adequately consider community needs and whether beneficiaries meet the intended policy criteria ([Sari, 2022](#)).

Previous research on government housing programs has primarily focused on infrastructure outcomes, implementation barriers, or socioeconomic impacts. Limited attention has been given to beneficiary targeting accuracy as a governance issue, particularly within indigenous communities receiving Special Autonomy-funded housing assistance. Furthermore, empirical evidence regarding how planning quality, implementation effectiveness, and beneficiary validation mechanisms interact within village-level housing programs in Papua remains limited. This gap is important because inaccurate targeting may undermine the fundamental objectives of welfare-oriented public expenditure.

This study addresses this gap by examining the management of the decent housing development program in East Mimika District through three analytical dimensions, namely planning realization, implementation effectiveness, and beneficiary targeting accuracy. Using a qualitative intrinsic case study approach, this research provides an in-depth understanding of how the program was planned, implemented, and experienced by beneficiaries and stakeholders. The findings are expected to contribute to improving public housing governance through stronger validation mechanisms, culturally responsive planning, and more participatory monitoring systems.

2. Literature Review and Hypothesis/es Development

2.1 Policy Implementation Theory

[Alaerts \(2020\)](#), policy implementation model provides a comprehensive framework for explaining why substantial government budgets do not always result in optimal policy outcomes. The model identifies six key factors influencing implementation effectiveness, including policy standards and objectives, resources, inter-organizational communication and enforcement activities, characteristics of implementing agencies, social, economic, and political conditions, and the disposition of implementing actors. These factors emphasize that successful implementation depends not only on financial resources but also on institutional capacity, coordination mechanisms, and alignment between policy objectives and local conditions. In the context of the Hiripau decent housing program, this framework is highly relevant because although significant financial resources were allocated, challenges in beneficiary validation, inter-agency coordination, and socio-cultural adaptation created gaps between the intended policy objectives and implementation outcomes. Furthermore, [\(Azzahra, Kurniady, & Kurniatun, 2025\)](#) implementation framework, which highlights communication, resources, disposition, and bureaucratic structure as critical determinants of policy success, provides additional insight into analyzing administrative weaknesses, particularly in beneficiary identification and validation procedures. Together, these perspectives offer a theoretical foundation for understanding how governance factors influence the effectiveness and targeting accuracy of government housing programs [\(Tambajong, & Wayangkau, 2026; Rahma, & Purbaningrum, 2024\)](#).

2.2 Basic Needs Approach and Welfare Theory

[Coote \(2022\)](#), emphasizes that human welfare depends on the fulfillment of both minimum personal consumption needs, including food, clothing, and shelter, and access to essential public services such as water, sanitation, education, and healthcare. Within this framework, housing represents a fundamental requirement for achieving a decent standard of living. [Desmet and Fokkinga \(2020\)](#) hierarchy of needs places shelter as a basic physiological and safety necessity that must be fulfilled before individuals can pursue higher social and self-development needs. Extending this perspective, [Handel \(2019\)](#) argues that housing should not be understood merely as a physical structure but as a social process that reflects residents' identity, security, autonomy, and control over their living environment.

Housing quality therefore represents an important determinant of multidimensional welfare outcomes. [Rahmawati and Rukmana \(2026\)](#) distinction between residual and institutional welfare models provides a relevant perspective for understanding government housing programs, where housing provision under Indonesia constitutional framework represents an institutional welfare responsibility rather than a discretionary form of assistance. Consequently, inaccurate beneficiary targeting may undermine the fundamental objectives of welfare-oriented public policies. [Liu \(2025\)](#) further explains that welfare should be evaluated through multiple dimensions, including economic aspects through reduced household expenditure burdens, health improvements through reduced disease risks, social dimensions through enhanced interaction and safety, and psychological dimensions through increased dignity, comfort, and self-confidence.

2.3 Welfare Economics and Targeting Theory

[Finkelstein and Hendren \(2020\)](#) Welfare Economics framework emphasizes that optimal allocation of public resources requires governments to direct assistance toward beneficiaries who obtain the highest marginal social benefit, particularly households with the greatest level of need. From this perspective, beneficiary targeting accuracy is a critical component of effective public policy implementation. The inclusion error identified in this study, where housing assistance funded through Special Autonomy (Otsus) and regional budgets was received by beneficiaries who did not meet the intended low-income household criteria, reflects a potential allocative inefficiency because limited public resources may not generate the maximum welfare impact [\(Konorop, 2025\)](#).

Previous studies highlight the importance of accurate beneficiary identification mechanisms. [Harleli and Irma \(2024\)](#), based on evidence from Indonesian villages, demonstrated that relying solely on visual assessment without systematic database verification increases the likelihood of targeting errors. Similarly, [Banerjee, Hanna, Olken, and Sumarto \(2020\)](#) found that Proxy Means Testing (PMT) provides a more reliable approach for reducing inclusion errors compared with direct income reporting or subjective assessment methods. These findings provide an important analytical basis for evaluating beneficiary validation practices in Hiripau Village, where verification procedures relied primarily on physical observation without comprehensive socioeconomic data integration. Furthermore, [Jewed, Abdullah, & Ishak, \(2025\)](#) argues that inclusion errors in social assistance programs can weaken poverty reduction outcomes by reducing the effectiveness of resource allocation toward genuinely vulnerable households.

2.4 Regional Economics and Fiscal Decentralization

[Fern, Hefferan, and Muurlink \(2022\)](#) theory of Circular Cumulative Causation explains how housing deprivation can reinforce a persistent cycle of vulnerability. Poor housing conditions may increase health risks, reduce household productivity, limit income-generating capacity, and subsequently constrain the ability of households to improve their living environment. In this perspective, decent housing programs function as policy interventions that aim to disrupt this cycle by reducing housing-related burdens and creating opportunities for households to allocate resources toward other productive needs ([Rabani, 2026](#); [Tika, 2025](#) ; [Swasanti, 2020](#)).

[Choi and Shim \(2026\)](#) Big Push theory further highlights that development interventions achieve greater impact when implemented through coordinated investments rather than isolated actions. Within the context of housing development, the provision of physical housing units requires supporting infrastructure, including road access, clean water availability, sanitation, and drainage systems, to maximize welfare outcomes. Without complementary infrastructure, housing programs may generate limited social benefits for recipient communities.

Furthermore, [Boufounou, Eriotis, Kounadeas, Argyropoulos, and Pouloupoulos \(2024\)](#) perspective on fiscal decentralization emphasizes that effective local government spending requires adequate institutional capacity, transparent resource allocation, and strong accountability mechanisms. This framework is relevant to the management of Special Autonomy (Otsus) funds in Mimika Regency, where the effectiveness of housing programs depends not only on budget availability but also on the capacity of local institutions to plan, implement, and distribute assistance accurately to intended beneficiaries.

2.5 Prior Research Synthesis and Research Gap

Previous studies have also demonstrated the broader welfare impacts of decent housing interventions. [Batticaca, Khusumawati, and Bangun \(2024\)](#) found that improving household flooring conditions in Papua coastal communities contributed to reductions in diarrhea and acute respiratory infection incidence, supporting the observed health improvements among Hiripau beneficiaries. [Gunadi, Kostini, and Alexandri \(2022\)](#) documented increased productivity among fishing community households after receiving decent housing assistance, confirming the potential economic benefits of housing improvement programs. In addition, [Tuti and Sulistia \(2022\)](#) identified a strong relationship between community participation in planning and beneficiary satisfaction, while [Natsir, Ferdi, Din, Nasution, and Ulya \(2026\)](#) demonstrated that the involvement of customary institutions reduced implementation delays in areas with strong indigenous governance structures.

Despite these findings, previous studies have largely examined targeting accuracy, implementation effectiveness, or welfare impacts separately. Limited research has comprehensively analyzed how beneficiary validation failures occur within Special Autonomy (Otsus)-funded housing programs in Papua while simultaneously documenting their implications for welfare outcomes at the village level. This study addresses this gap by providing an integrated analysis of planning realization,

implementation effectiveness, beneficiary targeting errors, and multidimensional welfare impacts through a case study of the decent housing program in Hiripau Village, East Mimika District.

2.6 Research Subjects and Context

Fifteen informants were selected using purposive sampling to represent four analytical perspectives related to the management of the decent housing program. The primary informants consisted of 10 Kamoro Tribe beneficiary household heads who provided firsthand experiences regarding the planning process, quality of physical housing outputs, and welfare impacts of the program. Policy implementation perspectives were obtained from two East Mimika District Government officials, namely the Head of District (*Kepala Distrik*) and District Secretary (*Sekretaris Distrik*), who provided insights into planning, coordination, and program supervision mechanisms. Technical implementation perspectives were obtained from two project managers or contractors who explained construction processes, logistical constraints, and technical quality aspects. In addition, one community-cultural informant, namely the Head of Hiripau Village (*Kepala Kampung/Ondofolo*), was included to provide perspectives on customary land dynamics, local cultural considerations, and community welfare conditions.

The beneficiary group consisted of 10 Kamoro Tribe households with diverse socioeconomic backgrounds. The beneficiaries were aged between 35 and 55 years, comprising traditional fishermen (45%), casual laborers (25%), and civil servants (8%). This composition reflects variations in household economic conditions, including the identification of two beneficiaries who did not meet the intended Low-Income Household (LIH) criteria and became a central focus in analyzing beneficiary targeting accuracy.

3. Research Methodology

3.1 Research Design and Location

A qualitative descriptive approach with a single intrinsic case study design ([Stake, 2018](#)) was employed to explore the management of the decent housing program for Kamoro Tribe households in Hiripau Village. This design was selected because the study focuses on understanding a specific and bounded phenomenon within its real-life context, including cultural characteristics, geographic conditions, and institutional implementation processes. The research was conducted from January to April 2026 in Hiripau Village, Wania Sub-District, East Mimika District, Mimika Regency, Central Papua Province. The research site was selected based on several considerations, including the concentration of Kamoro Tribe beneficiaries, the availability of comprehensive program information from planning to completion stages, and the relevance of the location for examining beneficiary targeting issues identified during preliminary field observations. This setting provides an appropriate context for analyzing planning realization, implementation effectiveness, and beneficiary targeting accuracy in a Special Autonomy-funded decent housing program.

3.2 Data Collection and Analysis

Four data collection methods were employed to achieve methodological triangulation. In-depth semi-structured interviews were conducted with informants for 30–60 minutes per session, recorded with consent, and transcribed verbatim to explore program experiences, planning quality, implementation processes, and perceived welfare changes. Field observations were conducted through participatory and non-participatory approaches across all 10 housing units during morning and afternoon sessions to document construction quality, accessibility conditions, and community livelihood activities. Document analysis was conducted using relevant program documents, including beneficiary determination decrees, Budget Realization Reports, technical specifications, standard operating procedures, progress reports, and annual reports from related agencies. Demographic information was obtained from BPS Mimika 2024 and Hiripau Village administrative records.

Data analysis followed the interactive model developed by [Miles, Huberman, and Saldaña \(2014\)](#), consisting of three stages, namely data reduction, data display, and conclusion drawing and verification. Data reduction involved thematic coding of interview transcripts and observation notes, while data display was conducted through analytical matrices, comparison tables, and interpretive narratives. Conclusions were developed through continuous pattern verification across data sources. Research credibility was maintained through source triangulation by comparing beneficiary and institutional perspectives, method triangulation through interviews, observations, and document analysis, and temporal triangulation throughout the four-month research period. Member checking was also conducted to validate key findings with selected informants.

4. Results and Discussions

Table 1. Physical Assessment of Pre-Program Housing Conditions in Hiripau Village

Housing Component	Substandard	Dominant Condition Description	Health/Safety Risk
Floor	81%	Earth, cracked cement, damp, uneven	Very High
Sanitation	76%	No in-house MCK, with makeshift latrine	Very High
Roof	72%	Leaking, rumbia/corroded zinc, fragile structure	High
Wall	68%	Thin timber, woven bamboo, not waterproof	High
Ventilation	64%	Minimal windows, poor air circulation	Moderate
Clean Water Access	58%	Rainwater collection or shallow wells only	High
Electricity	45%	No PLN connection, with generator or oil lamp	Moderate

Source: Mimika Housing Agency, 2024 and Primary Observational Data 2026

The pre-program housing conditions presented in Table 1 demonstrate a severe multidimensional housing crisis among the Kamoro tribe residents of Hiripau Village. The 81% earth floor rate, the highest substandard indicator, is directly linked to documented health risks. [Rahmawati and Rukmana \(2026\)](#) established strong correlations between earth floors, damp walls, and acute respiratory infection/skin disease incidences. The 76% lack of in-house sanitation facilities creates hygiene conditions that, combined with the 87.33% average humidity in Mimika Timur's coastal-lowland climate, generate a high-risk epidemiological environment.

Table 2. Profile of 10 Kamoro Household Beneficiaries in Hiripau Village

No.	Code	Age	Occupation	Income/month	Category	Initial House Condition
1	R1	45	Civil Servant	Rp 5.500.000	Non-LIH (*)	Timber wall, leaking roof, earth floor
2	R2	42	Civil Servant	Rp 5.500.000	Non-LIH (*)	Timber wall, leaking roof, cracked cement
3	R3	50	Fisherman	Rp 2.000.000	LIH	Woven bamboo, rumbia roof, earth floor
4	R4	38	Fisherman	Rp 1.800.000	LIH	Timber, old zinc roof, earth floor
5	R5	40	Fisherman	Rp 2.200.000	LIH	Timber, leaking roof, earth floor
6	R6	55	Fisherman	Rp 1.500.000	LIH	Woven bamboo, rumbia, earth floor
7	R7	35	Fisherman	Rp 1.700.000	LIH	Timber, leaking roof, earth floor
8	R8	48	Casual Labor	Rp 1.600.000	LIH	Timber, old zinc, earth floor
9	R9	43	Fisherman	Rp 1.900.000	LIH	Woven bamboo, rumbia, earth floor
10	R10	52	Casual Labor	Rp 1.500.000	LIH	Timber, leaking roof, earth floor

Source: Primary Data Processed, 2026

(*) = Does not meet MLIH criteria under Permen PKP No. 5/2025

Based on Table 2, eight of the ten Kamoro household beneficiaries in Hiripau Village were classified as Low-Income Households (LIH), with monthly incomes ranging from IDR 1.500.000 to IDR 2.200.000. Their initial housing conditions generally indicated inadequate housing quality,

characterized by timber or woven bamboo walls, rumbia or deteriorated zinc roofing, and earth floors. Several households also experienced specific structural deficiencies, including leaking or aging roofs and deteriorated flooring. In contrast, households R1 and R2, both of whom were employed as civil servants (*Pegawai Negeri Sipil*/PNS), reported monthly incomes of IDR 5.500.000 and were classified as Non-LIH. Although their houses also exhibited physical deficiencies, such as leaking roofs, timber walls, earth or cracked cement floors, their economic status distinguished them from the other eight beneficiary households. Thus, Table 2 indicates that the majority of beneficiaries were low-income households living in physically inadequate housing conditions, while the two Non-LIH households presented a different eligibility profile based primarily on their economic classification.

4.1 Planning Realization: The Inclusion Error Finding

Table 3. Planning Process Evaluation: Gap Between Standards and Field Practice

Planning Stage	Regulatory Standard	Field Realization	Gap Level	Status
RTLH data collection	Village-level census with documented criteria	Visual-physical inspection without income/employment query	High	Weak Implementation
Economic verification	Cross-check <i>Badan Kepegawaian Negara</i> (civil servant) and <i>Direktorat Jenderal Pajak</i> (income)	Not conducted and no database integration	Critical	Not Implemented
Beneficiary determination	Cumulative administrative + economic + technical criteria	Technical criteria only (physical house condition)	High	Partially Implemented
RAB preparation	Aligned with <i>Pekerjaan Umum dan Perumahan Rakyat</i> (PUPR) technical standards	RAB prepared per standard and specifications met	Low	Implemented
Program socialization	Comprehensive briefing to all beneficiaries	Not evenly distributed and the majority were uninformed of criteria/rights	Moderate	Suboptimal
Design participation	Community input on spatial needs	Top-down and no Kamoro cultural design input	High	Not Implemented
Adat land clearance	Land status verified before construction	1 unit delayed due to an adat land dispute	Moderate	Partial

Source: Source: Primary Data (Interviews + Document Analysis), 2026

Based on Table 3, the evaluation of the planning process shows that the implementation of the *Rumah Tidak Layak Huni* (RTLH) program still experienced several gaps between regulatory standards and field practices. The most significant gaps were identified in economic verification, beneficiary determination, and community participation, where the implementation did not fully comply with the established requirements. Meanwhile, the preparation of the *Rencana Anggaran Biaya* (RAB) demonstrated a low-level gap, indicating that the technical planning aspects were relatively well implemented. These findings suggest that improvements are needed, particularly in strengthening data validation, inter-agency coordination, and participatory planning mechanisms to ensure more accurate and equitable beneficiary selection.

The planning phase analysis reveals a pattern of formal compliance without substantive compliance: the program produces all required procedural documents while failing on the most critical substantive requirement, economic verification of beneficiary eligibility. The primary empirical evidence for this finding is R1's direct testimony.

"I was recorded because my house was indeed in poor condition, leaking roof and rotting walls. At that time, nobody asked about my job or salary, and only the physical condition of the house was checked by the village officer."

— Informant R1, Civil Servant, 2026

This testimony confirms what [Handel \(2019\)](#) terms the 'housing data paradox' Indonesia possesses comprehensive administrative databases, but these are not actively integrated into beneficiary verification processes. The result is selection governed by the least informative criterion (physical house condition) while ignoring the most discriminating criterion (economic status). [Alatas, Banerjee, Hanna, Olken, and Tobias \(2012\)](#) found that visual-physical verification without database cross-checking increases the targeting error probability by 45%, which is empirically confirmed in this study's 20% inclusion error rate.

The failure of economic verification creates cascading governance effects. Good Governance theory identifies three simultaneous governance failures in this finding, including accountability failure (verification mechanisms cannot ensure that public funds flow only to eligible beneficiaries), transparency failure (the beneficiary selection process excluded public information disclosure), and participation failure (top-down selection without community validation from those with direct knowledge of neighbors' economic conditions). The 80% LIH households correctly received assistance their fishing income of IDR 1.500.000–2.200.000 per month is well below the LIH threshold and Mimika's UMK (*Upah Minimum Kabupaten/Kota*). The critical welfare justice question is what happened to the households that should have occupied the two quota slots taken by non-eligible civil servant beneficiaries.

4.2 Implementation Effectiveness Analysis

Table 4. Implementation Effectiveness Assessment per Beneficiary Household

Code	Physical Output (5 components)	Completion Time	Active Supervision	Welfare Impact	Effectiveness Rating
R1	Meets standard ✓	On time	Active	Improved	Effective
R2	Meets standard ✓	On time	Active	Improved	Effective
R3	Meets standard ✓	2-week delay	Passive	Improved	Sufficiently Effective
R4	Meets standard ✓	On time	Passive	Improved	Sufficiently Effective
R5	Meets standard ✓	3-week delay	Active	Improved	Sufficiently Effective
R6	Meets standard ✓	4-week delay	Passive	Improved	Insufficiently Effective
R7	Meets standard ✓	2-week delay	Passive	Improved	Sufficiently Effective
R8	Meets standard ✓	On time	Moderately Active	Improved	Sufficiently Effective
R9	Meets standard ✓	3-week delay	Passive	Improved	Sufficiently Effective
R10	Meets standard ✓	2-week delay	Passive	Improved	Sufficiently Effective

Based on Table 4, physical output quality represents the strongest aspect of the RTLH program, as all 10 units fulfilled the five assessed technical feasibility components through direct construction observation. Beneficiary satisfaction with housing quality was consistently high, particularly due to the transformation from earth floors to ceramic tiles, which represented the improvement with the most direct health welfare implications. This finding is consistent with [Legge, Pullan, and Sartorius \(2023\)](#) study, which reported a 34% reduction in diarrhea cases and a 28% reduction in respiratory infections following floor improvements in coastal Papua, Indonesia. The testimony of R3 (fisherman, age 50) further illustrates the welfare mechanism generated by the housing improvement intervention.

"Children no longer frequently have skin diseases because the floor is no longer earth. Household expenditure has decreased significantly, money that used to be spent on medicine and patching the house can now be used for the children's school needs."

— Informant R3, Traditional Fisherman, 2026

However, the two implementation dimensions show significant weaknesses. Completion timeliness: Six of ten units (60%) experienced delays of 2–4 weeks, primarily driven by Mimika Timur's extraordinary rainfall (326 rainy days per year) and inadequate road access to some unit locations, preventing material delivery on schedule. This finding directly replicates [Alharthi, Al-Sulaihi, and Al-Gahtani \(2021\)](#) documentation of average 3.2-week delays in coastal housing program. The contractor confirmed that 'If it rains continuously, materials cannot enter, workers cannot work, the schedule will definitely slip.' Community participation in technical supervision: Seven of ten households (70%) are classified as passive, making no active effort to monitor construction quality. Only 30% of the respondents actively monitored the construction of their units. [Lizarralde, Davidson, Johnson, and Dikmen \(2018\)](#) documents the same pattern: without structured participatory mechanisms, communities with low educational attainment default to passively accepting the status quo. The Kepala Kampung directly confirmed: 'Residents have difficulty understanding technical building specifications, so they trust it to whoever is working.'

The two PNS households (R1 and R2) ironically show the best implementation outcomes, on-time completion and active supervision, because their higher education (*Sekolah Menengah Atas/SMA*) and organizational experience enabled them to engage meaningfully with contractors. This creates an additional equity concern: the non-MBR beneficiaries who can best protect their program rights are precisely those least deserving of the program itself. The eight LIH fishermen and casual laborers the rightful beneficiaries are the least equipped to ensure that construction quality meets standards, arguing strongly for structured community supervision mechanisms built into the program design.

4.3 Welfare Impact Analysis

Table 5. Synthesis of Welfare Impacts

Welfare Dimension	Specific Impact Documented	Informant Evidence	Literature Confirmation
Health	Reduced skin disease & ISPA in children; improved sleep quality; lower respiratory risk	R3, R4, R6, R7 testimonies	(Legge et al., 2023)
Economic	Reduced expenditure on house repairs; reduced medical costs; surplus redirected to children's education	R3, R5, R8 testimonies	Gunadi et al. (2020)
Social	Improved social interaction; greater participation in community activities; reduced housing-related social stigma	Village Head and Community Leader	Gunadi et al. (2020); (Lizarralde, Davidson, Johnson, & Dikmen, 2018)
Psychological	Enhanced dignity, safety, and pride in home; reduced anxiety about roof collapse/flooding; improved family atmosphere	R4, R6, R9 testimonies	(Alharthi et al., 2021) ; (Batticaca, Khusumawati, & Bangun, 2024)

Based on Table 5, despite weaknesses in planning quality and beneficiary targeting, the welfare impact assessment among the eight correctly targeted MBR households demonstrates substantial positive outcomes across four dimensions: health, economic, social, and psychological well-being. The findings confirm the Circular Cumulative Causation mechanism, in which decent housing contributes to breaking the poverty cycle by reducing household expenditure previously allocated to housing repairs and health-related costs, allowing resources to be redirected toward productive investments such as children's education and fishing equipment. The health dimension represents the most significant welfare improvement, reflected in reduced child respiratory risks, improved sleep quality, and decreased illness experiences reported by multiple informants. These findings are consistent with previous evidence showing that improved housing conditions and flooring interventions can contribute to better health outcomes among vulnerable communities [Legge et al. \(2023\)](#). The psychological dimension, including pride of ownership, security, and dignity, also emerged as a significant outcome from the informant accounts, supporting the view that housing

improvement represents not merely physical shelter provision but also a process of strengthening social identity and household well-being ([Alharthi et al., 2021](#); [Batticaca et al., 2024](#)).

The Head of Housing Division at PUPR Mimika acknowledged the welfare impact while correctly noting its limitations, stating that the program contributes to welfare improvement, especially in meeting basic housing needs. However, welfare is not determined by housing alone; it is also determined by access to employment, education, and healthcare services. Therefore, this program needs to be synergized with other development programs for more comprehensive impact.' This observation aligns with [Choi and Shim \(2026\)](#) Big Push argument, where housing investment alone produces reduced-value welfare improvement without simultaneous investment in road access, clean water, drainage, and economic empowerment programs.

4.4 Inhibiting Factors Analysis

Table 6. Inhibiting Factors Matrix

Category	Specific Inhibiting Factor	Impact	Informant Source
Administrative / Validation	Visual-only verification; no BKN/DJP cross-check; SKTM issued without income validation	20% inclusion error, 2 PNS receive LIH-program assistance	R1 testimony
Technical-Geographic	326 rainy days/year, unpaved access roads to some units, 87.33% humidity damages materials during delivery	2–4 week delays in 6 units, elevated material costs, quality variation in difficult-access units	Contractor
Financial / Budget	Otsus disbursement delays causing 1–2 week construction halts, increased mobilization cost	Reduced community trust, higher transaction cost, schedule disruption	District Head
Socio-Cultural / <i>Adat</i>	Customary land boundary dispute on 1 unit location, house design incompatible with fishing/seafood storage needs	Construction delay on 1 unit, reduced housing utility for fishermen household function	Village Head
Inter-Agency Coordination	Weak coordination among the Department of Housing, Districts, and Villages, with no integrated monitoring mechanism	Duplicated activities, slow problem response, reduced program effectiveness	Distrik officials

Based on Table 6, the five inhibiting factors form a mutually reinforcing constraint system, not independent problems. Administrative validation failure (Category 1) is the most fundamental, as it undermines program legitimacy from the first stage, compromising the normative purpose of the Otsus expenditure. Geographic-climatic constraints (Category 2) are the most structurally determined 326 rainy days per year in a coastal lowland district is not a solvable problem but a manageable one through seasonal logistics planning. [Choi and Shim \(2026\)](#) Big Push analysis applies here: road infrastructure investment preceding housing programs would reduce logistics costs, construction delays, and material quality degradation simultaneously, generating multiplied welfare returns from the same budget. The public figure captured the coordination failure directly by stating that the government has attempted to provide assistance through the RLH program, but implementation has not been optimal. Many residents have not yet received support, leading to perceptions that the assistance distribution remains unequal.

5. Conclusions

This qualitative case study examined decent housing program management in Hiripau Village, East Mimika District, using interviews with 15 informants, observations, and document analysis. Four main conclusions were identified. First, the planning process demonstrated formal administrative compliance but lacked substantive beneficiary validation. Although budget reports, technical plans, and beneficiary decisions were properly prepared, economic eligibility verification was not

conducted, resulting in a 20% inclusion error where two of ten beneficiaries were civil servants households exceeding the LIH criteria. The validation process relied primarily on visual assessment without database verification, while community participation in planning remained limited.

Second, implementation effectiveness was positive in terms of physical outputs, as all 10 housing units met technical standards and generated multidimensional welfare improvements, including better health conditions, reduced household expenses, and improved family well-being. However, implementation faced delays in 60% of housing units and limited beneficiary involvement in supervision due to geographic constraints and weak participatory mechanisms. Third, five interconnected barriers affected program effectiveness, including administrative validation failures, geographic challenges, budget delays, socio-cultural constraints, and weak inter-agency coordination. Fourth, the findings support Circular Cumulative Causation theory by demonstrating that decent housing can reduce poverty-related burdens and improve welfare outcomes. However, the program's impact remains limited due to insufficient supporting infrastructure and the absence of complementary economic empowerment initiatives.

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Author Contributions

TER contributed to the conceptualization, research design, data collection, field investigation, data analysis, and manuscript preparation. ERM contributed to the development of the theoretical framework, literature review, methodological refinement, and critical revision of the manuscript. TPU contributed to research supervision, validation of findings, interpretation of results, and final manuscript review. All authors contributed to the revision process and approved the final version of the manuscript for publication.

Conflict of Interest

The authors declare that there is no conflict of interest regarding the publication of this article. The research was conducted independently, and the authors have no financial, personal, or institutional relationships that could have influenced the research design, data collection, analysis, interpretation of findings, or preparation of the manuscript.

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