

# **Home Along the Railway: Understanding the Migration and Settlement of Informal Settler Families Living Along Railway Lines in the Philippines**

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## **Abstract**

This study investigates the living conditions of Filipino informal settler families (ISFs) residing along the Philippine National Railways (PNR) tracks in Brgy San Antonio, Los Baños. It examines their past through migration histories, their present through unmet basic needs, and their aspirations amid an uncertain future. Utilizing a narrative approach, the research draws on semi-structured interviews and field observations to collect qualitative data. Findings reveal that economic vulnerability is the primary driver behind their settlement along the rail tracks. The persistent threat of eviction discourages residents from investing in housing improvements, while access to essential services remains limited. Nevertheless, strong social ties and support from the barangay contribute to community cohesion. The study concludes that inadequate urban planning and weak enforcement of housing policies have contributed to the persistence of informal settlements. It calls for the implementation of inclusive and sustainable relocation programs that genuinely respond to the needs and aspirations of ISFs.

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**Introduction**

Railways reflect a nation's progress and contribute to sustained economic growth over time (Aziz et al. 2018). In developed countries, rail transport plays a vital role in promoting sustainable development due to its low environmental impact and ability to transport bulk cargo and large numbers of passengers in a single trip (Pietrzak and Pietrzak 2019). In the Philippines, the railway system is considered a key solution for achieving efficient and affordable public transportation, offering benefits such as speed, high capacity, comfort, reduced traffic congestion, and overall economic gains (Acuin et al. 2019).

One of the most widely used rail systems in the country is the Philippine National Railways (PNR). PNR is a state-owned railway and the only heavy rail transport system in the Philippines (PNR 2014). It operates commuter services in Metro Manila as well as long-haul routes to southern provinces in Luzon (Navarro and Latigar 2022). Since its establishment in 1964, PNR has earned strong patronage among Filipinos. According to Navarro and Latigar (2022), PNR conducted 16,974 trips in 2021, transporting more than 3.5 million passengers within the National Capital Region (NCR) alone.

The Philippine National Railways (PNR) primarily operates in Metro Manila but suspended its services on March 27, 2024, to make way for the construction of the North–South Commuter Railway (NSCR) project. Despite this, some PNR lines remain active in the provinces of Laguna, Quezon, and Bicol, serving commuters in the southern part of Luzon. Beyond its transportation benefits, PNR has also inadvertently provided resettlement opportunities for Informal Settler Families (ISFs) living along its railways.

The settlement of families along PNR's rail tracks began in the 1970s during a surge in infrastructure development (Singh and Gadgil 2017). Over time, these communities became known as "linear settlements along railways"—a form of informal housing that develops in narrow strips along railway lines.

Living in such areas is both dangerous and illegal. The World Bank, as cited by Gray and Ocampo (2017), identifies two main reasons: (a) these settlements occupy government-owned land, complicating future redevelopment efforts, and (b) they are located in high-risk zones. Many of the houses, small farms, and pavements are built just meters from the tracks, violating Administrative Order No. 98-12 of the Department of Environment and Natural Resources (DENR), which designates a 15-meter right-of-way (ROW) from the rail lines as a no-build zone (LMB-DENR n.d.). This area is reserved for railway operations and maintenance (DAR 1969).

Despite these legal restrictions, many ISFs continue to occupy the PNR's ROW due to weak law enforcement (Usamah et al. 2012). Over time, these linear settlements have become semi-permanent, creating narrow communities often referred to as "Home Along the Riles" (Dungca & Orbon 2015). Residents use the ROW for housing and informal roads, despite the clear safety hazards.

These communities face numerous risks. Residents living along active rail lines are far more exposed to accidents than train passengers. Delayed trains or maintenance locomotives can pass without warning (Navarro and Latigar 2022), placing families at significant risk—especially considering PNR train speeds that range from 40–90 kph in Manila and 80–120 kph in provincial areas. Additionally, the aging infrastructure increases the risk of derailments.

Natural disasters also threaten these settlements. Many areas lack proper drainage and flood control, making them highly susceptible to flooding, particularly during typhoons (Singh & Gadgil 2017). Flooding disrupts residents' daily activities, limiting access to work,

school, and essential goods. Fires are another common hazard. Homes are often built from flammable materials, packed tightly together, with narrow streets that hinder emergency vehicle access (Rahmawati et al. 2020).

Moreover, the living conditions in these informal settlements are generally poor. Most lack access to basic services such as clean water, sanitation, waste management, healthcare, education, electricity, and proper roads (UN-Habitat 2007 as cited in Chumo et al. 2022; UN-Habitat 2022). Despite these challenges, ISFs continue to live along the railway, sustained by necessity and resilience.

Several factors contribute to the formation of these linear communities. The lack of affordable housing, especially in Metro Manila (Singh and Gadgil 2017), combined with rapid population growth, poor urban planning, and weak zoning enforcement, has driven many to seek shelter along railways (Gray and Ocampo 2017). Urban migration also plays a role—families relocate to cities in search of better employment opportunities but often fail to secure jobs due to a lack of education or training (Gray and Ocampo 2017). Living near railways offers accessibility to markets, jobs, and cheap transportation, making it a practical—if unsafe—choice (Singh and Gadgil 2017). Some migrants believe that settling in areas less likely to be developed will reduce the risk of eviction (Jalil et al. 2018).

Interestingly, the social, cultural, and economic dynamics of railway-line communities differ significantly from other types of informal settlements (e.g., those along rivers or roads). These communities exhibit complex characteristics. For instance, some residents operate improvised pushcarts, or “trolley skates,” providing informal transportation for fellow low-income residents who cannot afford tricycle fares (AECOM 2021; Dungca and Orbon 2015). Others appreciate the proximity to train stations, while some vent frustrations by throwing garbage onto the tracks (Cuizon et al. 2014). Still, many believe that the sense of *bayanihan*—community cooperation—is stronger in these areas, especially during disasters (Usamah et al. 2014).

Nonetheless, the constant threat of eviction looms. Several relocation efforts have been made, including a notable initiative during the administration of President Gloria Macapagal Arroyo, which displaced thousands of ISFs during PNR's rehabilitation (PNR 2014). Today, the government continues to pursue railway modernization projects, such as the South Long Haul Project (SLHP), which will revive the "Bicol Express" service over a 382-km stretch from Calamba to Legazpi (NEDA 2023). While the project promises to revitalize the rail sector, it also poses the risk of displacing thousands more families living along the PNR South Main Line.

This study, therefore, investigates the past, present, and future conditions of ISFs living linearly along the PNR railway's South Main Line. Barangay San Antonio in Los Baños, Laguna, was chosen as the study site due to the large number of families currently residing beside the rail tracks. The research explores their migration patterns, current living conditions, and future aspirations. Ultimately, it aims to fill the gap in local literature on informal settlements specifically built along railways in the Philippines.

### **Internal Migration in the Philippine**

Migration refers to the movement of people, either temporarily or permanently, from their place of origin to another destination within a specific period (Yulu 2021). Migration can result in significant social, economic, and environmental transformations. However, statistical data often fails to capture migrants' motivations or the cultural and financial constraints they face. Many migrants, for instance, lack cultural and ecological knowledge about their destination (Fouberg et al. 2012 as cited by Yulu 2021).

Internal migration, or the movement of people within national borders, accounts for 84% of total migration among Filipinos in the past five years (University of the Philippines Population Institute [UPPI] & Demographic Research and Development Foundation, Inc. [DRDF] 2020). Most internal migration occurs from rural to urban

areas, particularly within the National Capital Region (NCR) and nearby provinces such as Bulacan and Laguna. These movements often contribute to rapid urban population growth (UN-Habitat 2022).

The UPPI and DRDF (2020) study revealed that internal migration is not random but follows identifiable demographic trends. Economic motivations—especially employment—remain the primary driver. Migration is often a rational strategy for individuals seeking to escape financial vulnerability (Bazillier and Boboc 2016).

Interestingly, women are more likely to migrate internally than men. Additionally, younger generations are more mobile, influenced by higher educational attainment and prior work experience. This aligns with findings from Klyachko and Semionova (2021), who identified youth as the most mobile demographic. Many young migrants who relocate for education rarely plan to return to their hometowns.

Wealth also influences migration decisions. Individuals below the poverty line are often driven by the hope of better job prospects, although migration itself poses financial and logistical challenges. In countries such as Afghanistan, unemployment is a major push factor for migration (Afzali 2019).

Housing and settlement patterns are shaped by available land. Jalil et al. (2018) observed that undeveloped lands—such as riverbanks or railway tracks—attract informal settlers who perceive them as less likely to be developed. While rural-to-urban migration is predominant, there are also cases of urban-to-rural migration. Gutierrez et al. (2020) identified factors influencing this reverse trend, such as marriage, which often prompts individuals to relocate to join their spouses. Single individuals, especially women, also migrate for empowerment and independence (Chowdhory et al. 2022). Kinship ties play a role, with families more inclined to migrate to rural areas if they have relatives there (Akanle et al. 2019). Lifestyle preferences—such as the desire to start a new life and raise a family—further influence migration to rural areas.

Climate change is another significant driver of migration. It can destroy homes, damage infrastructure, and limit livelihood opportunities, thereby compelling people to move (Mallick and Siddiqui 2015). However, male migration in response to climate threats sometimes contradicts the broader trend of higher female migration rates. Young and educated individuals are particularly prone to climate-induced migration.

Informal settlements along railways represent a distinct type of internal migration outcome, often forming linear communities on government-owned land. These settlements typically lack planning, with homes tightly packed along tracks—many just 7 meters wide and facing the rail line (Rahmawati et al. 2020). These communities persist due to the availability of undeveloped railway land and weak enforcement of land-use regulations (Kamalipour 2016; Singh & Gadgil 2017).

In the Philippines, approximately 13.7% of the population lived alongside Philippine National Railways (PNR) tracks in 2012 (Arevalo et al. 2012). The historical origins of these railway-side informal settlements remain unclear. However, PNR infrastructure has deteriorated in recent years, raising concerns about safety for both commuters and nearby residents (Choi 2016).

Arevalo et al. (2012) investigated the lived experiences of informal settler families (ISFs) along PNR tracks in Los Baños through in-depth interviews, capturing the cultural dynamics within these communities. Kamalipour (2016) employed a case study approach in Bangkok, using field observation, visual documentation, and urban mapping to examine spatial patterns of ISF housing along railway tracks. The accessibility of the site and data richness motivated the use of the case study method.

The future of ISFs living along rail tracks remains uncertain due to persistent threats of eviction. While the government promotes urban redevelopment and family relocation, many ISFs resist relocation due to negative perceptions of resettlement areas. These

government housing projects are often remote, lacking essential services and access to employment opportunities.

While existing studies provide valuable insights into the patterns, drivers, and consequences of internal migration in the Philippines, important dimensions of the phenomenon remain underexplored. Much of the literature tends to focus on general trends, such as economic motivations and demographic characteristics of migrants. However, it often overlooks the deeply personal and evolving experiences of those who move, particularly those who settle informally along infrastructure like railway tracks. The lived realities of these communities, which are shaped by poverty, displacement, and resilience, deserve closer and more sustained attention.

Therefore, to better understand internal migration and informal settlement dynamics in the Philippines, this research adopts more grounded by paying attention more closely to the voices of those most affected, document their stories over time, and critically examine the structures—economic, political, environmental—that shape their lives. Only then can we move beyond abstract statistics and begin crafting policies that are both effective and just.

## **Method**

This study draws on the narratives of ten households living along the railway tracks in Barangay San Antonio, Los Baños, Laguna, Philippines. Participants were selected using purposive sampling, focusing specifically on ISFs (informal settler families) residing in the area for at least 15 years. Household heads were chosen as respondents, as they are generally perceived to have greater awareness of their community's conditions.

Purposive sampling was employed not only to target long-term residents but also to consider the willingness of household heads to participate in data collection. While this sampling method does not aim to represent the entire population, it should not be seen as a limitation. Rather, purposive sampling allows researchers to select individuals who can provide rich, relevant, and in-depth information

(Rai and Thapa 2015). Table 1 presents a summary of the participants' demographic information.

Table 1. Demographic Information of Study Participants

Participants	Age	Sex	Highest Educational Attainment	Occupation	No. Of Years Living In Rails	House Hold Income Per Month	Type Of Settlement
Biot	29	F	Undergraduate	N/A	12 years	N/A	Shared, informal
Myla	50	F	High School	Vendor	28 years	10,000	Shared, informal
Rocelyn/ Celia	23	F	High School	N/A	22 years	N/A	Rent, informal
*Aling Dolor	60	F	High School	N/A	60 years	12,000	Owned, informal
Rachel	37	F	Undergraduate	Vendor	18 years	12,000	Owned, informal
Milet	74	F	High School	Vendor	30 years	N/A	Owned, informal
*Ruel	51	M	High School	Trolley Driver	51 years	9,000	Owned, informal
Lilay	73	F	Elementary	N/A	54 years	N/A	Owned, informal
Pon	33	F	High School	Vendor	15 years	10,000	Owned, informal
Willie	66	M	N/A	Vendor	24 years	6,000	Owned, informal

Note: Participants with an asterisk (\*) next to their initials indicate that they were non-migrants.

### *Research Design*

This study employed a qualitative research approach, specifically a narrative research design, to explore the lived experiences of ISFs (informal settler families) residing along railway tracks. According to Butina (2015), qualitative research enables in-depth exploration

of issues through open-ended questions, capturing participants' perspectives and the meanings they assign to their experiences. Despite small sample sizes, this approach can yield rich and meaningful data.

Narrative research, in particular, focuses on collecting and interpreting individuals' stories to understand their lived realities (Wolgemuth and Agosto 2019; Butina 2015). These narratives reveal underlying social constructs, shared meanings, and the sociocultural context of participants' lives. While in-depth interviews are the primary method of data collection, other qualitative techniques—such as field observations and field notes—were also employed to enrich the data.

This narrative approach allowed the study to trace the life trajectories of participants chronologically, offering them the space to recount their experiences of living beside the railway throughout different stages of their lives. Furthermore, this design captures both the personal and social dimensions of their stories—highlighting not only individual experiences but also the broader sociocultural factors shaped by the community's dominant norms and practices.

### *Data Collection*

The primary research instrument used in this study was the semi-structured interview, an in-depth method for collecting systematic information on a specific topic. It is particularly useful when the topic is known but further exploration is needed (Wilson 2014). The first part of the interview gathered demographic information, including respondents' occupations and the materials used to build their homes. The second part consisted of open-ended questions aimed at uncovering participants' lived experiences, focusing on their migration history, current living conditions, and future aspirations.

In addition to interviews, field observations were conducted. We made several site visits, using trolley transportation to facilitate

movement within the linear community. Photographs and video recordings were taken to document the community's spatial features and enrich the study's data.

Data collection for this study was carried out in four main phases: (a) preparation, (b) preliminary data collection, (c) main data collection, and (d) exit. In the preparation phase, we coordinated with the thesis adviser and the local government unit to secure a Permit to Conduct a Study in Barangay. This document outlined the study's purpose, objectives, required assistance, and the researchers' contact information, ensuring both the legitimacy of the research and the safety of the researchers in the field.

The preliminary data collection phase involved a site visit to the research locale. During this visit, we conducted field observations and used trolley transportation to navigate the area and become familiar with the community's layout. Participants were then selected through purposive sampling. Each was presented with the approved barangay permit, a university ID, and an informed consent form. Initial demographic information and contact details were also collected at this stage, and interview schedules were arranged based on mutual availability.

The main data collection phase consisted of in-depth interviews with the selected participants. Each respondent received a printed copy of the informed consent and the interview guide. The informed consent introduced the researchers, explained the study's purpose, and outlined participants' rights before, during, and after the interview. Participants were also asked for permission to audio record the interview, which facilitated accurate transcription. Interviews lasted approximately 20 to 40 minutes.

In the exit phase, we thanked participants for their voluntary involvement and provided a token of appreciation. Participants were also informed about when they could expect to receive updates or results from the study.

### *Data Analysis*

This study employed thematic analysis (TA), a widely used method in qualitative research for identifying, analyzing, and interpreting patterns—or “themes”—within raw data. The process followed the five steps outlined by Castleberry and Nolen (2018): (a) compiling, (b) disassembling, (c) reassembling, (d) interpreting, and (e) concluding.

The first step, compiling, involved collecting raw data, primarily through audio recordings of interviews. These recordings were transcribed, and we handled the transcription to gain a deeper familiarity with the data, laying the groundwork for analysis.

The second step, disassembling, required breaking down the data into smaller, meaningful units called codes. Each code was defined to reflect specific ideas or experiences shared by participants. To facilitate this process, we used computer-assisted qualitative data analysis software (CAQDAS).

The third step, reassembling, involved grouping related codes into broader themes. These themes captured key patterns in the data and directly addressed the study’s research questions.

The fourth step, interpreting, was the critical analytical phase. Here, we examined the significance of the codes and themes, deriving insights into the lived experiences of participants.

Finally, the concluding step tied the analysis back to the study’s research questions and objectives, summarizing key findings and drawing meaningful conclusions from the thematic insights.

### *Theoretical Framework*

The theoretical framework of the study encompasses the guiding theories and provides a context for understanding the lived experiences of ISFs residing beside the rail tracks of the PNR. This study delves into the past, present, and future experiences of ISFs through their narratives.

The past experiences of ISFs are examined through their migration history, influenced by push and pull factors, which are well-documented in existing local literature. The present living conditions of ISFs are analyzed using Maslow's Hierarchy of Needs framework, focusing specifically on their physiological, safety and security, and belongingness needs. Due to the informality associated with living beside the rail tracks, many of these needs remain unmet.

Finally, ISFs face the constant threat of eviction due to the redevelopment of rail tracks for future projects, such as the SLHP. Although relocation plans are available, the negative connotations associated with resettlement areas—such as the lack of essential services and their remote locations—often cause ISFs to resist relocation, remain persistent in their current settlements, or eventually return to living as informal settlers beside the rail tracks.

### **The Migration Patterns and Short History of ISFs Along PNR Rail Tracks**

The emergence of the informal settler community (ISFs) along the Philippine National Railways (PNR) tracks in Barangay San Antonio has no clearly documented origin. However, narratives from long-time residents suggest that many families have lived in the area for several decades. According to participants, the land adjacent to the rail tracks was once lined with trees and remained unoccupied. Over time, however, a surge in population occurred due to continuous migration, leading to an initially disorganized and chaotic environment. Some residents recalled that only those with courage and determination were able to impose a semblance of order within the growing community.

Today, the area has transformed into a more organized settlement under the governance of the *barangay*. Community organizations have also emerged, such as the San Antonio Trolley Organization (SANTO), composed of trolley drivers who are also residents. These individuals engage in informal economic activities

to support their livelihoods. Despite the community's relative peace and organization, the threat of eviction continues to cast a shadow over their daily lives.

The study also explored the migration patterns of participants. Many reported having lived in various locations before settling along the rail tracks. Some lived in specific places for several years before relocating, ultimately choosing to live beside the tracks. Several had previously rented houses, while none reported prior experience living in informal settlements before this.

Most participants who had migrated multiple times before settling near the railway were single during their migration years. In contrast, those who moved directly to the rail tracks without prior relocation experiences often did so with their families. Interestingly, many participants met their partners during the course of their migration.

The reasons behind their relocation to the rail tracks vary. However, two central themes emerged: push and pull factors that influenced their decision to migrate, which will be elaborated upon in the following section.

### **Pull Factors of Migration: Why ISFs Chose to Live Beside the Rail Tracks**

Pull factors are the features of a destination that attract migrants. These can include better employment opportunities, access to shelter, higher standards of living, or favorable social and political conditions, such as freedom and quality healthcare services (Urbański 2022).

In the context of this study, the pull factors refer to the specific characteristics of the informal community along the railway tracks that make it appealing for migrants to settle there. Based on participants' narratives, three key pull factors emerged that explain why they were drawn to live beside the rail tracks as follows.

### *Economic Opportunities*

Economic opportunities were the primary motivation for the majority of participants' migration. Barangay San Antonio offers significantly more job prospects compared to their places of origin, such as the provinces of Leyte and Bicol. Located in the urban municipality of Los Baños, Barangay San Antonio benefits from increasing commercialization, which in turn provides numerous employment opportunities.

Moreover, Los Baños's proximity to larger urban centers—such as Calamba City, Lucena City, and Metropolitan Manila—further enhances its appeal as a destination for migrants. As Yulu (2021) explains, urbanized areas host numerous businesses and corporations, drawing rural migrants in search of better economic opportunities.

One participant, Rachel (37 years old), shared that her decision to settle beside the railway was directly influenced by employment she found near the Los Baños crossing: "I came here when I was around 21 years old. Because at that time, I was working at the market in the crossing."

Findings from various studies (Bazillier and Boboc 2016; UPPI and DRDF 2020) indicate that employment opportunities are the primary factor influencing the migration of Filipinos—particularly among families living in poverty who seek to escape economic vulnerability. Urbanized and economically developed areas such as Manila and Los Baños tend to attract Filipino families from the southern provinces in search of better livelihoods.

In addition to employment, business prospects also played a significant role in participants' decisions to settle along the rail tracks. Many participants noted that the community presented a favorable environment for small-scale entrepreneurship, largely due to the steady flow of people passing by who might notice and purchase their products. Observations during the study confirmed the presence of numerous sari-sari stores within the informal settlement—often built adjacent to or directly facing each other. Aling Dolor, a 60-year-old

resident, shared her experience running a thriving *sari-sari* store: “Just bring out what you have to sell, there are people who will buy, and you’ll make a living.”

Turgo (2013) emphasized the strategic importance of *sari-sari* stores in informal communities, describing them as focal points of community life. He argued that anyone wishing to observe the everyday routines of residents should position themselves near these stores. Their visibility and accessibility make them effective sites for commerce. Consequently, high visibility to consumers creates a stronger local market, explaining the prevalence and success of such stores in the rail-side community.

### *Kinship Networks*

Another significant pull factor influencing participants’ migration was the presence of relatives already living in the informal community along the rail tracks. These kinship networks played a crucial role in facilitating a smoother transition for newcomers, offering both emotional and practical support as they settled into their new homes.

Akanle et al. (2019) note that the existence of kinship networks at the destination often attracts families to migrate, as these ties reduce the need for major adjustments. By providing a sense of familiarity and security, such networks enable migrants to integrate into the community more quickly and effectively. In several cases, participants even lived in adjacent houses with their relatives.

One participant, Birot (29 years old), shared that her migration was motivated by a strong sense of familial duty rooted in the Filipino value of *utang ng loob* (debt of gratitude). She explained:

The ones who raised me are the siblings of my mother. Now, the eldest one passed away, leaving them alone. That’s why I was forced to live here, so they have someone with them. Because there are only two of them left, and they are both deaf.

### *Affordable Land*

The affordability of land was another major factor that attracted participants to settle beside the rail tracks. Although these lands fall within the Philippine National Railways (PNR) right-of-way (ROW), some individuals informally offered or sold portions of the land at very low prices. For many, this arrangement provided an opportunity to “own” land without having to pay rent or property taxes.

Two participants shared how they acquired their land. Milet (74 years old) said: “We did not have our own land. Here, it’s relatively inexpensive, and a friend offered it to me. So, I built a house here. This was confirmed by Willie (66 years old) who remarked: “The owner of that house had a sick sibling who needed money. I bought it while it still didn’t have a roof.”

These narratives support the findings of JICA (2018), which state that informal settler families (ISFs) are drawn to areas where land is either free or offered at very low costs. This is particularly advantageous for low-income households, as it helps alleviate the financial burden of rent. However, it is important to note that settling along the railway poses serious safety risks and exposes residents to the constant threat of displacement. Yulu (2021) further explains that the availability of undeveloped or unregulated land in urban areas acts as a pull factor for rural migrants, contributing to the growth of informal settlements.

### **Push Factors of Migration: Why ISFs Left Their Hometowns**

Push factors are the negative conditions in a migrant’s place of origin that compel them to relocate. These stand in contrast to pull factors, which draw individuals to a new location. As discussed by Carbajal and Calvo (2021) and Khalid and Urbański (2021 as cited in Urbański 2022), push factors may include economic vulnerability, lack of public services, political instability, and environmental risks.

In the case of the informal settler families (ISFs) interviewed for this study, the key reasons for migration were economic insecurity and unfavorable living conditions. Based on participants' narratives, three major push factors emerged as follows.

### *Unaffordable Rental Fees*

Many participants initially lived in rental housing prior to migrating to the informal settlement beside the rail tracks. However, the rising cost of rent forced them to seek more affordable alternatives. Pon, a 33-year-old participant, recounted her family's experience of being evicted after failing to pay rent:

We rented a house before. We were like having a non-permanent address. What is this? It's like we're all over the place and not stable at all. There came a time when we were evicted because we were unable to pay the rent.

In contrast, living along the rail tracks meant no rent payments. This made it a practical choice, particularly for individuals without stable income or access to pensions. Willie, 66 years old, explained his preference for investing in building materials rather than paying rent: "I do not want to rent; the rent is expensive. In four years, I will break even. I spent on renovations, but that is better than renting."

This supports the findings of Wang et al. (2023), who reported that individuals from low socioeconomic backgrounds often struggle the most with housing affordability. Although they may prefer to live in cities with better employment prospects, high housing costs often push them to seek alternative locations with free or low-cost occupancy—even if that means settling informally.

### *Unavailability of Affordable Land*

Some participants expressed that they had initially intended to purchase land in their hometowns but were unable to afford the cost. As a result, they sought more accessible alternatives and eventually settled on land adjacent to the railway. Lilay, a 73-year-

old participant, stated: “We have nowhere else to go, so we are here. We do not have land.”

This reflects the findings of Numbasa and Koczberski (2012), who emphasized that the scarcity of affordable land significantly influences the migration decisions of informal settlers. As population growth outpaces land availability and low-cost housing, many impoverished families are left with no option but to occupy undeveloped or government-owned lands. Yulu (2021) similarly notes that limited land availability and unaffordable housing often lead migrants to construct dwellings informally, contributing to the expansion of informal settlements.

### *Unfavorable Living Conditions*

Another critical push factor was the poor living conditions in participants’ hometowns. These included poverty, lack of opportunities, exposure to natural disasters, and political unrest. Environmental threats, such as frequent typhoons and flooding in eastern provinces, have also been linked to internal migration (Bohra-Mishra et al., 2017). Meanwhile, social instability—such as the absence of basic infrastructure, inadequate public services, and the daily threat of violence—further motivated families to relocate (Mallick and Siddiqui 2015).

Pon (33 years old) explained that her family fled their hometown due to political conflict: “My parents brought me here. It was chaotic in Bicol because of the prevalence of the NPA, so they brought me here.”

Similarly, Birot (29 years old) described how daily violence in her hometown motivated her to seek a safer environment for her children:

In our place, it’s common for people to get drunk every day. That is why I do not want to go back there, because my husband does not want our children to go outside. He does not want our children to witness fights.

These testimonies are consistent with Katsarski's (2019) assertion that political instability often fuels the development of migratory attitudes. Families seek safety, stability, and peace of mind—especially for their children—prompting them to abandon conflict-ridden or unsafe environments.

### **Current Living Conditions of ISFs Along the Rail Tracks**

Having lived beside the Philippine National Railways (PNR) tracks for several years, participants shared that they have gradually adapted to their environment. While the initial period involved significant adjustments—such as adapting to the daily passage of trains, interacting with unfamiliar neighbors, and developing a new sense of identity as residents of an informal rail-side community—they have since become accustomed to the lifestyle.

Their narratives shed light on their current living conditions, particularly in relation to their physiological needs, sense of safety, and feelings of belongingness within the informal community. These themes capture the complexity of daily life in the settlement. Table 3 presents the major themes that emerged regarding the present living conditions of ISFs residing beside the rail tracks.

Table 2. The State of Needs Among ISFs Living Along the Rail Tracks

Themes	Description
Physiological Needs	The physiological needs of ISFs are compromised due to limited access to essential utilities and ongoing economic hardship
Safety and Security	Living beside rail tracks exposed ISFs to various dangers, including natural disasters, man-made disasters, and issues involving youth

Table 2. (Continued)

Community Belongingness	The informal community beside the rail tracks is generally peaceful, yet the diverse population brings a variety of cultures and beliefs. Additionally, the supportive role of the <i>barangay</i> is essential in maintaining a just and orderly community
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### *The Physiological Needs Among ISFs*

According to Maslow’s Hierarchy of Needs, physiological needs—such as food, water, and shelter—are the most fundamental and must be met for human survival (Aruma and Hanachor 2017 as cited in Chumo et al. 2022). This section explores the current state of these needs among ISFs, focusing on participants’ experiences related to daily food consumption, access to clean water, and housing conditions.

#### Struggles with Daily Food Consumption

Many participants reported that they could meet their daily food requirements, consuming sufficient and nutritious meals three to four times a day. However, this was not a universal experience. A number of participants expressed difficulties in maintaining a consistent and nutritious diet due to limited financial resources. Their income—whether from informal employment or small-scale businesses—was often insufficient to meet the family’s basic food needs.

Willie (66 years old) shared how he tries to stretch his daily earnings to provide for his family: “We sell because even just one kilo of rice is enough. If you earn 200 pesos, your profit is 50, and you already have one kilo. Just add a dish. So, we just endure.”

Similarly, Rocelyn explained how their family’s limited income is further strained by the cost of medication for her father, leaving less money for food: “We are having some difficulty obtaining food, but not water due to a small salary and the cost of medication.”

This finding aligns with the study by Nikuze et al. (2019), which found that families in informal settlements often resort to reducing their food intake and altering their diets due to financial limitations. In many cases, ISFs rely on the cheapest available food products, which compromises nutritional value.

Despite these challenges, some households have managed to cope through resource sharing and family support. Birot (29 years old) explained how her family was able to manage food expenses by pooling resources: “We are doing fine; we split the bills among ourselves.”

### Access to Clean Water

Participants shared their experiences regarding access to water in their community. Overall, they reported no major issues with water availability. However, the sources of water varied among households. Some residents had formal connections to the National Water and Sewerage Authority (NAWASA), which provided clean and reliable water.

Long-term residents of the informal settlement, however, noted that NAWASA no longer installs new water connections. This is reportedly due to the Philippine National Railways (PNR)’s planned demolition of the community as part of its railway rehabilitation project in the South. Birot (29 years old) explained the situation: “They [NAWASA] do not intend to install water connections since they know this place will be demolished. Only the old residents have water connections.”

As a result, most households now rely on *poso* or manual water pumps that tap into groundwater sources. While *poso* water is commonly used for bathing and laundry, concerns were raised about its potability. This finding contrasts with Aravelo et al. (2012), who reported that groundwater from *poso* in Baybayin—another informal community along the railways in Los Baños—was clean and had no recorded cases of water-borne illnesses.

Despite its questionable quality, *poso* water remains a vital resource for many families, primarily because it is free. Yet, some residents expressed challenges related to physically drawing water from the pump. Myla (50 years old) shared: “Of course, first and foremost, it is really difficult to get water from the water pump.” To ensure safe drinking water, many participants purchase bottled mineral water. Myla mentioned the financial burden of doing so: “We do not pay for our water, but I do spend a lot on mineral water.”

Meanwhile, others have developed alternative solutions. Willie (66 years old) installed an improvised pump system to make groundwater more accessible for drinking: “When I had some money, I installed a machine on the well. It is clean, and that is where we get our drinking water. It is an improvised pump machine.” These experiences highlight the disparities in water access and quality within informal settlements and underscore the resourcefulness of residents in adapting to uncertain and limited infrastructure.

### The Condition of Housing

Participants shared their perspectives on their current housing situation along the rail tracks. While their homes provide basic shelter, most expressed dissatisfaction with the quality, particularly in extreme weather conditions.

During the summer season, residents experience intense heat due to poor roof insulation and limited ventilation. While a few financially capable families have installed air conditioning units, most endure the discomfort of the high temperatures. Similarly, during the rainy season, many participants reported roof leaks caused by holes, leading to water intrusion and a sense of insecurity. Roselyn (23 years old) highlighted the poor condition of their rental home:

The rent is 1.5k, but there are so many leaks. We cannot get it fixed. It has so many holes, and the rainy season is approaching. The landlord does not want to fix it because we will have to move anyway.

These findings align with Kamalipour (2016), who notes that informal settlers typically invest in incremental housing upgrades depending on their financial capacity to enhance living conditions and improve structural durability. However, economic limitations often prevent such improvements.

Another significant constraint on housing quality stems from the Philippine National Railways (PNR)'s periodic right-of-way (ROW) clearing operations. According to participants, PNR enforces a 3–5 meter buffer zone beside the railway for safety, which includes removing any structures within that area. This uncertainty discourages residents from investing in housing improvements for fear their homes may be partially or entirely demolished in future clearance operations. Myla (50 years old) shared her hesitation about upgrading their home: "I want to fix it, but we were worried that it would just be a waste of money. My husband planned to raise it, but I thought that by 2025, we might be washed out." Such insecurity about land tenure and the threat of displacement significantly affects the housing stability and well-being of ISFs living along the rail tracks.

### *The Compromised Safety and Security*

In addition to examining the physiological needs of ISFs living in informal communities along the rail tracks, this study also explored their perceptions of safety and security. According to Fleury et al. (2021 as cited by Chumo et al. 2022), individuals have an innate desire to be protected from danger, fear, and vulnerability. Living beside the railway tracks, however, exposes ISFs to various hazards that threaten their safety and well-being. These include natural and man-made disasters, the risk of train accidents, and the challenges of navigating life within a densely populated and socio-culturally diverse environment.

Participants shared their experiences with the multiple risks associated with residing along the rail tracks. Flooding emerged as the most frequently cited natural hazard. Due to the sloped terrain

beside the rail line and the lack of a proper drainage system, homes in the area are prone to water accumulation during heavy rains, especially in typhoon season.

Myla (50 years old) described the severity of flooding in her household: “It is terrible when it floods. It gets inside our house, up to knee level. If it were not for the pump at the back of our house, the water would not go away.” Lilay (73 years old) echoed a similar concern, emphasizing how storms significantly damage their homes: “Storms are difficult. Our house gets damaged. The inside of the house gets flooded. We have to lift our things onto the table.”

In addition to natural disasters, man-made hazards, particularly the threat of fire, were a major concern. Three long-time neighbors in the community shared their experience with a fire that occurred in their area the previous year. Participants were aware of the heightened fire risk due to the densely packed arrangement of houses, most of which were made from combustible materials. This finding aligns with Singh and Gadgil (2017), who noted that informal settlements near railway tracks are particularly vulnerable to fire due to the use of flammable construction materials and the lack of space between structures.

Furthermore, the narrow passageways in these communities limit access for emergency responders. Rahmawati et al. (2020) reported that fire trucks often struggle to enter informal settlements near railways due to restricted road access. Fortunately, in the incident described by the participants, the fire occurred near a barangay access road, which allowed fire trucks to reach the area quickly and extinguish the flames.

## **Conclusion**

The decision of informal settler families (ISFs) to reside beside the railway tracks in the Philippine was largely driven by necessity rather than choice. Faced with economic hardship, unaffordable housing, and lack of access to land, families resorted to living in these informal settlements despite the risks and legal issues involved. Their

narratives highlight how financial vulnerability, compounded by the absence of affordable alternatives, forced them to prioritize survival over legality or safety. Yet, despite these challenges, communities along the railway lines—such as in Brgy San Antonio—have managed to create strong social bonds and a sense of belonging, often with limited but vital support from local authorities. These settlements, though illegal, reflect not individual failure but broader systemic issues in housing access and urban inequality.

This study underscores the urgent need for more humane and comprehensive housing solutions that address the actual needs and aspirations of ISFs. Future relocation efforts should prioritize not only adequate housing but also proximity to jobs, access to essential services, and community integration. The study also advocates for broader application of Maslow’s Hierarchy of Needs in analyzing ISF well-being and suggests further exploration of their coping strategies, economic resilience, and community identity. Methodologically, it recommends the continued use of qualitative, narrative approaches—potentially strengthened by ethnographic methods and digital analysis tools—to deepen understanding and support evidence-based policy-making. Ultimately, solving the issue of informal settlements requires shifting the focus from simply relocating people to genuinely rebuilding lives.

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