Article

Who Feels Less Safe? Rural-Urban and Gender Dimensions of Physical Insecurity in Myanmar

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Abstract: This study investigates how armed conflict influences residents' perceptions of physical insecurity in Myanmar. The results show that heightened conflict intensity is significantly associated with increased perceived insecurity. Subgroup analyses indicate that rural residents are more vulnerable to conflict than their urban counterparts. Additionally, male residents exhibit greater sensitivity to armed conflict in their perceived insecurity compared to females, confirming the existence of gender-specific threats such as targeted violence. These findings highlight the need for targeted policy interventions that account for the differential impacts of armed conflict across population groups. In particular, sustainable ceasefire arrangements, long-term peacebuilding initiatives, and strengthened law enforcement should prioritize the heightened vulnerabilities of rural communities and address gender-specific threats, such as those disproportionately affecting men. Overall, the analysis underscores the importance of comprehensive security sector reform and inclusive conflict resolution strategies to mitigate the psychological toll of armed conflict amid Myanmar's ongoing political instability.

Keywords: residents' perception of physical insecurity; armed conflict; rural-urban disparity; gender; Myanmar.

1. Introduction

Armed conflict imposes a significant burden on individuals and leads to the widespread destruction of lives and well-being (Ibáñez & Moya, 2010; Gates et al., 2012; Uche et al., 2021). It remains a critical global issue with far-reaching impacts on individuals, households, communities, nations, and entire regions. In many conflict-affected countries across Africa, Asia, and Latin America, households experience severe poverty, deprivation, and psychological distress as a result of armed violence (Justino, 2011). A growing body of research has explored the socioeconomic consequences of armed conflict on individuals and households

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in developing countries (Fürst et al., 2010; Ujunwa et al., 2019). Among the various dimensions of impact, concerns about physical security and exposure to violence are particularly salient for populations living in conflict zones (Vinck et al., 2008; Raleigh, 2012).

Armed conflicts cause widespread destruction of property and infrastructure while intensifying threats such as forced recruitment by armed groups and opportunistic crimes, including looting and extortion (McIntyre, 2003; Justino, 2011; Justino & Verwimp, 2013). The persistent threat of violence, ranging from robbery and theft to various other crimes, creates an atmosphere of pervasive uncertainty that disrupts daily life and undermines economic activity (Williams et al., 2018; George et al., 2021). As a result, individuals often experience heightened anxiety, primarily due to concerns about the physical insecurity of their homes and communities. For instance, during the period of armed conflict in Nepal, fear of violence was both widespread and persistent (Williams et al., 2018).

Myanmar has experienced persistent political instability and armed conflict since gaining independence in 1948. The country has endured numerous crises and evolving political landscapes involving both longstanding and emerging actors (Takada et al., 2022). Following the dramatic shift in political dynamics in 2021, armed conflicts have intensified and spread across the country (Medail et al., 2023), significantly affecting the daily lives of its citizens. These conflicts have profoundly shaped people's perceptions of safety, stability, and the future. Fear and mistrust are widespread, driven by the ongoing threats of violence, forced displacement, and human rights violations. Understanding how prolonged armed conflict shapes public perceptions of security and how these effects vary across regions and individual characteristics is a critical concern for Myanmar. Such insights are vital for policymakers, as they shape community responses to crises, relationships with authorities, and future aspirations. Without addressing these persistent security concerns, efforts toward reconciliation, peace, and sustainable development are unlikely to succeed.

Existing studies show that people commonly experience fear and heightened concerns about personal security during armed conflict (Boyle, 2009; Ray, 2017; Williams et al., 2018). Although some research uses survey data to examine the psychological and behavioral effects of conflict (Zagefka & Jamir, 2015; Moya, 2018), important methodological gaps remain. A growing number of studies have effectively combined household surveys with geocoded conflict data to analyze various outcomes, such as food security, agriculture livelihood and health (Adelaja & George, 2019; George et al., 2020: George et al., 2021: Wayoro, 2023). However, applying this methodology to systematically analyze perceptions of physical security remains less common, particularly in the context of Myanmar. This study builds on this emerging literature by using an integrated dataset to examine how localized conflict intensity correlates with residents' feelings of insecurity. While my township-level aggregation of conflicts is less fine-grained, it still provides important localized insights into the relationship between conflict intensity and perceived insecurity in a hard-to-research

context. Linking household level survey data with detailed conflict event records could offer valuable insights into how armed conflict shapes civilian fears and coping strategies.

Building on the above arguments, this study examines how armed conflict influences residents' perceptions of physical insecurity in Myanmar by analyzing the relationship between localized conflict intensity and self-reported physical insecurity. It further explores potential heterogeneity in this relationship across urban and rural settings, as well as individual characteristics, particularly gender. Many studies illustrate that rural residents have a high chance of being the victims of wars compared to urban ones because rural areas are usually the front line of the armed conflict (Londoño et al., 2012; Sánchez-Céspedes, 2017). In contrast, some studies show urban areas are more vulnerable due to their high population density in which the law enforcement and security forces are costly and difficult to respond to the insurgent groups' operation (Konaev & Spencer, 2018; Nedal et al., 2020). Given the lack of consensus and the context-dependent nature of these patterns, this study does not seek to test these general propositions. Instead, I explore the spatial heterogeneity within Myanmar to examine whether and how the relationship between conflict and perceived insecurity differs between urban and rural residents.

Gender plays a critical role in shaping individuals' perceptions during armed conflicts. Women are particularly vulnerable to gender-based violence, facing heightened risks of sexual violence and human trafficking in conflict settings (Gardam & Charlesworth, 2000; Kudakwashe & Richard, 2015). In contrast, men are often perceived as potential combatants or security threats by armed groups, making them primary targets for violence, forced recruitment, or detention (Daw et al., 2019; Meagher et al., 2021). These distinct, gender-specific threats contribute to the development of different perceptions of physical insecurity among men and women exposed to armed conflict. Identifying this is essential for advancing both academic knowledge and policy responses. By examining how conflict affects perceptions of insecurity across genders, this study aims to inform the design of more targeted and gender-sensitive interventions in conflict and post-conflict settings. Despite the importance of this issue, much of the existing literature on the civilian impacts of armed conflict tends to treat affected populations as a homogeneous group (Pearlman, 2016; Attah-Otu, 2025), overlooking critical gender-based differences. Neglecting these disparities risks producing incomplete or distorted understandings of the social and psychological consequences of conflict exposure.

The analysis draws on a uniquely merged dataset combining the Myanmar Household Welfare Survey (MHWS), conducted by the International Food Policy Research Institute (IFPRI), with geocoded conflict event data from the Armed Conflict Location and Event Data Project (ACLED). While previous research has explored the economic, displacement, and humanitarian consequences of Myanmar's recent armed conflicts (Khai, 2023; Minten et al., 2023), this study is the first, to my knowledge, to empirically assess how conflict in-

tensity influences perceptions of physical insecurity in the aftermath of the 2021 political crisis. Crucially, it also contributes to the literature by revealing important heterogeneities in perceived insecurity, offering new insights into how different communities and households experience and internalize conflict-related threats.

2. Hypotheses

2.1. Armed conflict and perception of physical insecurity

Armed conflicts significantly influence residents' perceptions of physical security, driven by several interconnected factors. First, direct violence poses immediate physical threats, resulting in deaths, injuries, and forced displacement (Adelaja & George, 2019; Braithwaite et al., 2021). Insurgent groups often target civilians or rival factions in efforts to gain territorial control, weaken public support for adversaries, and secure resources to sustain their operations (Ibáñez & Moya, 2010; Hultman, 2012). In conflict-affected areas, the presence of landmines and bomb explosions creates a constant threat, discouraging people from leaving their homes or going to work. This not only heightens fear but also disrupts daily routines and economic activities (Andersson et al., 1995). Additionally, armed conflict frequently leads to the destruction or loss of assets, such as homes, land, livestock, and other productive resources, through looting and combat-related damage (Justino, 2011). The fear of property loss or theft further compounds residents' sense of insecurity (George et al., 2021).

Second, the proliferation of weapons and the weakening of law enforcement exacerbate residents' sense of insecurity during armed conflict. Firearms and other weapons often become widely accessible in conflict-affected areas, increasing the risk of violence among both combatants and civilians (Braga-Pereira et al., 2020). Armed groups frequently target government and police forces, particularly those that are lightly defended, forcing them to withdraw from certain areas (Eck, 2025). As a result, in some countries, such as Somalia, police forces have been unable to carry out their duties during periods of intense conflict (Baker, 2017). The breakdown of law enforcement institutions makes it exceedingly difficult to control the circulation of weapons, contributing to rising crime rates (ICRC, 1999). In such contexts, state authorities often struggle to ensure public safety, leaving civilians vulnerable to armed violence. For example, in Afghanistan, decades of conflict created a multilayered climate of fear, where citizens were threatened not only by insurgent groups but also by criminal gangs exploiting the absence of effective policing (Ray, 2017).

Third, forced recruitment and labor further intensify insecurity during armed conflict. Armed and political groups often exploit unstable environments by forcibly recruiting youth into their groups, creating constant fear among residents of being conscripted against their will (McIntyre, 2003; Eck, 2014; Sawyer & Andrews, 2020). Furthermore,

forced labor is another form of enslavement that occurs during armed conflicts, where armed groups compel civilians to work for them under threat or coercion (Schmitt, 2022; Smith et al., 2023; LaFreniere, 2025). As a result, civilians often live in fear of being forcibly recruited or subjected to forced labor by these groups during times of conflict. This persistent threat undermines individuals' sense of safety and autonomy. At the same time, exposure to violence and trauma profoundly affects civilians, particularly as shifting sociopolitical conditions and individual roles in the conflict shape their vulnerability (Ray, 2017).

Fourth, uncertainty surrounding information exacerbates anxiety. In conflict settings, access to accurate and reliable information is severely limited due to insecurity and disruption. This creates fertile ground for the rapid spread of rumors, unverified narratives that, despite lacking confirmation, are often perceived as true (Schon, 2021; Greenhill & Oppenheim, 2017). The resulting confusion and misinformation amplify fear and hinder people's ability to make informed decisions, further deepening the sense of insecurity.

Finally, long-term socioeconomic consequences deepen vulnerability. While the immediate death toll and injuries are devastating, the long-term repercussions of such conflicts extend far beyond battlefield casualties, severely disrupting economic stability and social development (Gates et al., 2012). Many people are concerned about the disruption caused by armed conflict because it can destabilize the livelihoods that sustain their daily activities (Williams et al., 2018). For example, the 1990s Rwandan conflict led to widespread destruction, imprisonment, and a significant impact on household poverty levels (Justino & Verwimp, 2013).

Since gaining independence in 1948, Myanmar has been embroiled in one of the world's longest-running civil wars, involving both political and ethnic armed groups (Zreik, 2021; Graceffo, 2024). Administratively, Myanmar comprises seven states, seven regions, and one union territory, and is home to eight major ethnic groups, with the Burmese forming the majority. Each state is named after its largest ethnic group, reinforcing strong ethno-nationalist identities. This ethnic nationalism has long been a driver of armed conflict (International Crisis Group, 2020). The geographic scope and intensity of the conflict have fluctuated over time, expanding or contracting in response to shifting political dynamics and the status of peace negotiations. Periods of relative calm have alternated with episodes of severe violence, reflecting unresolved ethnic tensions, competing territorial claims, and failures in sustained dialogue.

The political crisis that began in 2021 has significantly exacerbated economic instability and poverty (MDO, 2023). As of 2024, more than half of Myanmar's 330 townships are experiencing active armed conflict (World Bank, 2024), resulting in thousands of civilian casualties and widespread destruction of infrastructure and markets (Chen et al., 2023). Law enforcement operations in conflict-affected areas remain weak due to the high risk of attacks on police forces. The escalation of violence has also fueled the expansion of Myan-

mar's black market for weapons and firearms. Some insurgent groups, such as the United Wa State Army (UWSA), operate their own weapons factories and supply arms to other factions (Meehan & Dan, 2023). Consequently, the rise in armed conflict and illegal arms trade has contributed to a surge in violent crime, including murder, robbery, looting, drug and human trafficking, and kidnapping since 2021 (GI-TOC, 2023: Taylor, 2024).

In addition, armed groups frequently coerce individuals and entire communities into recruiting new members for their organizations (Myanmar Peace Monitor, 2022a; Scarpino & Schochet, 2024). For decades, propaganda and disinformation have circulated widely, and in the current conflict, armed groups actively leverage social media and other communication platforms to amplify their narratives (Tønnesson et al., 2022; Samet et al., 2024). Misinformation and rumors spread rapidly, making it increasingly difficult for the public to distinguish between credible information and falsehoods. This information uncertainty, combined with an unpredictable security environment (United States Department of State, 2022), has left many people in Myanmar living in constant fear, with heightened concerns about their personal safety and daily security. Moreover, the escalation of armed conflict has worsened poverty, economic hardship, and social instability, while also disrupting critical infrastructure and essential services (OCHA, 2024). These conditions have intensified people's anxiety about meeting basic daily needs and ensuring their survival amid ongoing violence and insecurity. Based on these arguments, I propose the following hypothesis:

Hypothesis 1: Increased intensity of armed conflict heightens residents' perceptions of physical insecurity.

2.2. Rural and urban areas

The literature on the spatial distribution of conflict violence shows significant variation across cases. Some studies emphasize the growing presence of armed conflict in urban areas, highlighting the urbanization of violence (Elfversson & Höglund, 2021; Sampaio, 2021; Dorward, 2024). Armed conflict affects not only rural regions but also urban communities, sometimes with even greater severity. The intensity of violence in cities depends on political conditions and state capacity (Raleigh, 2015). Escalating insecurity in urban areas contributes to a heightened sense of insecurity among residents.

In contrast, rural areas are often the primary sites of armed conflict, leaving rural populations more adversely affected than urban ones (Londoño et al., 2012; Sánchez-Céspedes, 2017). Armed groups tend to prefer rural areas due to limited government presence, lower risk of betrayal, and greater operational freedom compared to urban settings (Staniland, 2010). These areas are also rich in natural resources, such as farmland, forests, and minerals, attracting armed groups seeking economic gain. Conflicts in resource-rich regions tend to be longer in duration (Lujala, 2010). To sustain their efforts, armed groups frequently

conduct forced recruitment and mobilization in rural communities (AI, 2003; Richards, 2014; Eck, 2014). Poorly protected government and police offices in remote areas are often attacked and seized, prompting security forces to flee to urban centers for safety (Eck, 2018). In Colombia, for example, homicide rates were consistently higher in rural areas than urban ones during the armed conflict from 1992 to 2015 (Vallejo et al., 2018). This persistent violence heightens a sense of insecurity that disrupts rural residents' daily lives and economic activities.

Given this difference, this paper does not confirm which view is generally right but to describe the situation in Myanmar. Evidence from the Myanmar context suggests that while urban areas have experienced the consequences of armed conflict, rural and hill regions more frequently serve as active conflict zones, placing rural populations at significantly higher risk of victimization (Forsyth & Springate-Baginski, 2022; UN, 2023; Zhu et al., 2025). Armed violence in rural areas often leads to widespread destruction of lives and property, making rural households far more vulnerable and intensifying their concerns about personal and communal security (Myanmar Peace Monitor, 2022b, 2025a). Additionally, armed groups usually attract and force rural people to join their organization (Myanmar Peace Monitor, 2025b). Moreover, the law enforcement force in rural areas is usually weak and sometime, abandon from their station and terminate their operation in rural areas because they are usually the target of armed groups (Myanmar Peace Monitor, 2023, 2024). Thus, compared to their urban counterparts, rural residents face greater exposure to direct violence and crimes and weaker protection from state institutions. Based on these arguments, I propose the following hypothesis:

Hypothesis 2: The effect of armed conflict intensity on perceived physical insecurity is more pronounced in rural areas compared to urban areas.

2.3. Respondent's gender

This study also examines gender-based heterogeneity by assessing whether the impact of armed conflict on perceived physical insecurity varies between female and male. Women are often more concerned about their security during armed conflict due to their heightened risk of war-related crimes such as sexual violence and human trafficking (Gardam & Charlesworth, 2000; Kudakwashe & Richard, 2015). Armed conflict also results in both direct and indirect harm to women, including injury and death (Plümper & Neumayer, 2006). Many women experience violence firsthand through torture and assault or indirectly, through the loss of loved ones, such as spouses (Qayoom, 2014). As a result, females tend to be more concerned about the physical security of their communities during periods of armed conflict.

Men also face significant security threats during armed conflict, contributing to height-

ened concerns for their personal safety (Meagher et al., 2021). One of the primary risks is forced recruitment, as armed groups frequently target males to join their ranks (Schäfer, 2013). Compared to females, men are more likely to experience direct and immediate exposure to the violence of armed conflict, largely because the majority of armed group members are male (Li & Wen, 2005; Plümper & Neumayer, 2006). As a result, men are often deliberately targeted and killed, leading to higher male casualty and mortality rates relative to women (Li & Wen, 2005; Ormhaug et al., 2009; Daw et al., 2019). In addition to being viewed as potential recruits, men are often perceived as security threats or enemies by armed actors. For example, the Israel Defense Forces (IDF) have frequently treated Palestinian males as suspected enemies, focusing on their detention and arrest during military operations in Gaza and the West Bank (Bornstein, 2010). Furthermore, while less visible and often underreported, men are also at risk of becoming victims of sexual violence during armed conflicts (Sivakumaran, 2007; Lewis, 2009). Given these multiple and severe threats, men tend to express heightened concern about security conditions within their communities during periods of armed conflict.

In the context of Myanmar, both men and women face serious security threats during armed conflict (International Alert, 2018). Women are particularly vulnerable to sexual violence, displacement, and various forms of exploitation, while the direct and immediate physical dangers of armed conflict are typically greater for men (Park & Pelletier, 2020). Armed groups disproportionately target men for detention and violent attacks, often perceiving unfamiliar males as potential enemies or spies (Al Jazeera, 2021). Additionally, forced recruitment is far more prevalent among men than women (Child Soldiers International, 2015; Human Rights Watch, 2023; Myanmar Peace Monitor, 2025c). As a result, concerns about personal security tend to be especially high among Myanmar men during periods of armed conflict. Based on these arguments, I propose the following hypothesis:

Hypothesis 3: The effect of armed conflict intensity on perceived physical insecurity is more pronounced among males than females.

3. Data and methodology

3.1 Data

This study utilizes an integrated dataset combining two primary sources: (1)the Myanmar Household Welfare Survey (MHWS), a nationwide phone survey conducted between December 2021 and February 2022 that measures various household welfare indicators; and (2)conflict event data from the Armed Conflict Location and Event Data Project (ACLED) for 2021–2022, which systematically documents incidents of violence and casual-

Table 1. Description of the variables

Variable	Description
Physical Insecurity	Respondent's perception of their physical insecurity level of area: very low physical insecurity (1) - very high physical insecurity (4).
Events during the 3-month pre-survey period	Number of conflict events (in hundred) during the three-month period (September-November 2021) before the MHWS survey.
Events during the 6-month pre-survey period	Number of conflict events (in hundred) during the six-month period (June-November 2021) before the MHWS survey.
Fatalities during the 3-month pre-survey period	Number of fatalities (in hundred) during the three-month period (September-November 2021) before the MHWS survey.
Fatalities during the 6-month pre-survey period	Number of fatalities (in hundred) during the six-month period (June-November 2021) before the MHWS survey.
Respondent's Characteristics	
Gender	Respondent's gender, 1 = female, and 0 = male.
Age	Log of respondent's age.
Education level	Respondent's education: 1 = Grade 10 or higher, 0 = Monastic education or below Grade 10
Social relationship	Respondent's perception on social relationship level of their living area: 1 = high, and 0 = low.
Household Characteristics	
Household size	Number of Household members.
Dependency ratio	Ratio of kids (0-14) plus elders (65-) to number of household members.
Female-dominated household	Female dominates household, 1 = yes, and 0 = no.
Income per capita	Log of 1 + income per capita of household
Income diversification	Household has income diversification, 1 = yes, and 0 = no.
Remittance per capita	Log of 1 + remittance per capita of household.
Dwelling strength	Dwelling condition, 1 = strong, and 0 = weak.
Natural disaster: rain	Household suffers disaster (rain), 1 = yes, and 0 = no.
Natural disaster: drought	Household suffers disaster (drought), 1 = yes, and 0 = no.
Natural disaster: other	Household suffers disasters (Other), 1 = yes, and 0 = no.
Rural	Household living area, 1 = rural, and 0 = urban.

ties across Myanmar. After removing observations with missing data, the final sample comprises 11,868 households. This merged dataset allows us to examine how localized conflict events correlate with individuals' security perceptions during this critical period.

This study measures respondent's perceptions of physical insecurity using the following question from the MHWS: "How would you describe the overall level of physical security in your area?" Responses were recorded on a four-point Likert scale ranging from 1 ("very low physical insecurity") to 4 ("very high physical insecurity"). Using conflict data from ACLED, this study constructs four measures of armed conflict intensity at the township level. The first and second measures are the total number of conflict incidents (in hundred) during the pre-survey periods of (1)three months (September-November 2021) and (2)six months (June-November 2021) preceding the survey. The third and fourth measures

Table 2. Descriptive statistics

	Obs	Mean	Std. dev.	Min	Max
Physical insecurity	11868	1.8856	0.8096	1	4
Events during the 3-month pre-survey period	11868	0.2038	0.2956	0	2.0700
Events during the 6-month pre-survey period	11868	0.3519	0.5155	0	3.2600
Fatalities during the 3-month pre-survey period	11868	0.1466	0.3635	0	3.5500
Fatalities during the 6-month pre-survey period	11868	0.2193	0.4973	0	4.5400
Gender	11868	0.5008	0.5000	0	1
Age	11868	3.5897	0.3432	2.8904	4.3041
Education level	11868	0.3551	0.4786	0	1
Social relationship	11868	0.8027	0.3980	0	1
Household size	11868	4.6780	2.0427	1	20
Dependency ratio	11868	0.2664	0.2125	0	1
Female-dominated household	11868	0.1092	0.3119	0	1
Income per capita	11868	10.1553	3.6217	0	16.1181
Remittance per capita	11868	1.3144	3.6714	0	15.8760
Income diversification	11868	0.1982	0.3986	0	1
Dwelling strength	11868	0.3232	0.4677	0	1
Natural disaster: rain	11868	0.0886	0.2842	0	1
Natural disaster: drought	11868	0.0195	0.1382	0	1
Natural disaster: other	11868	0.0078	0.0877	0	1
Rural	11868	0.7055	0.4558	0	1

are the total number of conflict-induced fatalities (in hundred) during the pre-survey periods of (3)three months (September-November 2021) and (4)six months (June-November 2021) preceding the survey. This approach coincides with the previous studies that employ fatalities as an alternative measurement for conflict intensity (Gates et al., 2012; Adelaja et al., 2023). Additionally, some studies state that the number of fatalities is one of the consistent and informative measures for systematically investigating dynamics of violence in armed conflict (Elfversson & Höglund, 2021).

In addition, this study incorporates both individual-and household-level characteristics from the MHWS. At the individual level, I consider key demographic variables (gender and age), educational attainment, and perceptions of social relationships within the community. At the household level, the analysis accounts for structural demographics (household size and dependent-to-adult ratio), economic conditions (income level, income diversification, and remittance receipts), housing quality (dwelling strength), environmental vulnerability (exposure to natural disasters), and residential location. Table 1 shows the variables used in this study and their descriptions.

3.2. Methodology

This study employs ordinary least squares (OLS) regression to examine how township-level conflict intensity relates to residents' perceptions of physical insecurity. The empirical

Table 3. Descriptive statistics

	Urban			Rural			Male			Female		
	Obs	Mean	Std. dev.	Obs	Mean	Std. dev.	Obs	Mean	Std. dev.	Obs	Mean	Std. dev.
Physical insecurity	3495	1.9940	0.8097	8373	1.8403	0.8053	5924	1.9299	0.8277	5944	1.8414	0.7888
Events during the 3-month pre-survey period	3495	0.2161	0.2583	8373	0.1987	0.3096	5924	0.1946	0.2811	5944	0.2130	0.3090
Events during the 6-month pre-survey period	3495	0.3972	0.4643	8373	0.3330	0.5343	5924	0.3345	0.4871	5944	0.3692	0.5418
Fatalities during the 3-month pre-survey period	3495	0.0959	0.2277	8373	0.1678	0.4052	5924	0.1364	0.3379	5944	0.1569	0.3871
Fatalities during the 6-month pre-survey period	3495	0.1528	0.3173	8373	0.2470	0.5532	5924	0.2040	0.4642	5944	0.2345	0.5279
Gender	3495	0.4967	0.5001	8373	0.5026	0.5000	5924	0.0000	0.0000	5944	1.0000	0.0000
Age	3495	3.5283	0.3350	8373	3.6154	0.3433	5924	3.6085	0.3514	5944	3.5710	0.3337
Education level	3495	0.5694	0.4952	8373	0.2656	0.4417	5924	0.3709	0.4831	5944	0.3393	0.4735
Social relationship	3495	0.7531	0.4313	8373	0.8234	0.3814	5924	0.8003	0.3998	5944	0.8050	0.3962
Household size	3495	4.6618	2.2271	8373	4.6848	1.9607	5924	4.6872	2.1053	5944	4.6689	1.9784
Dependency ratio	3495	0.2472	0.2083	8373	0.2744	0.2138	5924	0.2575	0.2137	5944	0.2752	0.2111
Female-dominated household	3495	0.1090	0.3117	8373	0.1093	0.3120	5924	0.0959	0.2945	5944	0.1225	0.3279
Income per capita	3495	10.3830	3.3114	8373	10.0602	3.7396	5924	10.3755	3.6105	5944	9.9358	3.6197
Remittance per capita	3495	1.3140	3.6675	8373	1.3145	3.6732	5924	1.2767	3.6425	5944	1.3519	3.6999
Income diversification	3495	0.0707	0.2563	8373	0.2514	0.4338	5924	0.2053	0.4039	5944	0.1911	0.3932
Dwelling strength	3495	0.4604	0.4985	8373	0.2660	0.4419	5924	0.3464	0.4759	5944	0.3001	0.4584
Natural disaster: rain	3495	0.0418	0.2001	8373	0.1082	0.3107	5924	0.0886	0.2842	5944	0.0887	0.2843
Natural disaster: drought	3495	0.0046	0.0675	8373	0.0257	0.1582	5924	0.0218	0.1460	5944	0.0172	0.1299
Natural disaster: other	3495	0.0066	0.0809	8373	0.0082	0.0904	5924	0.0061	0.0777	5944	0.0094	0.0966
Rural	3495	0.0000	0.0000	8373	1.0000	0.0000	5924	0.7031	0.4569	5944	0.7079	0.4547

model is described as:

$$\text{Physical Insecurity}_{ij} = \beta_0 + \beta_1 \text{Conflict}_j + \gamma X_{ij} + \varepsilon_{ij},$$

where $\text{Physical Insecurity}_{ij}$ denotes the perceived level of physical insecurity reported by respondent i in township j; Conflict_j represents the intensity of conflict in township j, measured by either the number of conflict events or fatalities; X_{ij} is a vector of control variables capturing both individual and household characteristics. Specifically, individual-level controls include gender, age, education level, and perceptions of social relationships within the community. Household-level controls include household size, dependent-to-adult ratio, household income, income diversification, remittance receipts, dwelling strength, exposure to natural disasters, and residential location (rural or urban); ε_i is the error term. This study also includes the state fixed effects.[1)]

Table 2 displays the descriptive statistics of the variables used in this study. On a 4-point Likert scale, the average physical insecurity score is 1.8856. The average number of conflict events and fatalities during the three-month period preceding the survey is 0.2038 and 0.1466, respectively. For the six-month pre-survey period, the corresponding averages are 0.3519 and 0.2193, respectively. Table 3 presents descriptive statistics for the variables, disaggregated by respondents' location (urban vs. rural) and gender (male vs. female). Regarding the location, the average physical insecurity score is 1.9940 for urban residents and 1.8403 for rural residents, indicating that perceived insecurity is higher in urban environments. It also presents the consistent urban-rural gap in the average numbers of conflict events and fatalities across all conflict measures. The average number of conflict events is higher in urban areas than in rural areas, while the average number of conflict-related fatalities is higher in rural areas than in urban areas. Concerning gender, the average physical insecurity score is 1.9299 for males and 1.8414 for females, suggesting that males perceive a higher level of physical insecurity than females.

4. Results

4.1. Conflict intensity and perception of physical insecurity

Table 4 presents the effects of township-level conflict intensity, measured by the number of conflict events and fatalities during the three-month and six-month periods preceding the survey, on residents' perceptions of physical insecurity.[2)] In this table, the odd-numbered columns include only respondents' individual characteristics as control variables, while the even-numbered columns additionally control for household-level characteristics. The results show that the coefficients of conflict intensity are significantly positive at the 1 percent level, irrespective of the conflict intensity measure used or the reference period (three-

Table 4. Conflict and residents' perception of physical insecurity (OLS Estimates)

	1	2	3	4	5	6	7	8
Events during the 3-month pre-survey period	0.1560***	0.1540***						
	(0.0308)	(0.0309)						
Events during the 6-month pre-survey period			0.0955***	0.0942***				
			(0.0169)	(0.0169)				
Fatalities during the 3-month pre-survey period					0.1435***	0.1439***		
					(0.0251)	(0.0251)		
Fatalities during the 6-month pre-survey period							0.1151***	0.1149***
							(0.0184)	(0.0183)
Respondent's Characteristics								
Gender	−0.0957***	−0.0993***	−0.0961***	−0.0996***	−0.0959***	−0.0994***	−0.0963***	−0.0998***
	(0.0138)	(0.0139)	(0.0138)	(0.0139)	(0.0138)	(0.0139)	(0.0138)	(0.0139)
Age	−0.1077***	−0.1068***	−0.1070***	−0.1061***	−0.1114***	−0.1102***	−0.1111***	−0.1097***
	(0.0212)	(0.0214)	(0.0212)	(0.0214)	(0.0212)	(0.0214)	(0.0212)	(0.0214)
Education level	0.0893***	0.0905***	0.0888***	0.0905***	0.0909***	0.0895***	0.0908***	0.0895***
	(0.0154)	(0.0161)	(0.0154)	(0.0161)	(0.0155)	(0.0161)	(0.0155)	(0.0161)
Social relationship	−0.5476***	−0.5446***	−0.5475***	−0.5446***	−0.5492***	−0.5459***	−0.5483***	−0.5449***
	(0.0193)	(0.0193)	(0.0193)	(0.0193)	(0.0193)	(0.0193)	(0.0193)	(0.0193)
Household Characteristics								
Household size		0.0087**		0.0087**		0.0091***		0.0091***
		(0.0035)		(0.0035)		(0.0035)		(0.0035)
Dependency ratio		−0.0471		−0.0472		−0.0485		−0.0491
		(0.0342)		(0.0342)		(0.0342)		(0.0342)
Female-dominated household		0.0089		0.0093		0.0108		0.0114
		(0.0222)		(0.0222)		(0.0222)		(0.0222)
Income per capita		−0.0079***		−0.0079***		−0.0077***		−0.0077***
		(0.0021)		(0.0021)		(0.0021)		(0.0021)
Remittance per capita		−0.0018		−0.0019		−0.0019		−0.0020
		(0.0019)		(0.0019)		(0.0019)		(0.0019)
Income diversification		−0.0258		−0.0253		−0.0248		−0.0235
		(0.0183)		(0.0183)		(0.0183)		(0.0183)
Dwelling strength		−0.0116		−0.0120		−0.0111		−0.0117
		(0.0159)		(0.0159)		(0.0159)		(0.0159)
Natural disaster: rain		0.0690***		0.0688***		0.0664***		0.0656***
		(0.0254)		(0.0254)		(0.0254)		(0.0254)
Natural disaster: drought		−0.0022		−0.0012		0.0006		0.0037
		(0.0504)		(0.0504)		(0.0501)		(0.0500)
Natural disaster: other		0.1681*		0.1697*		0.1621*		0.1637*
		(0.0962)		(0.0958)		(0.0968)		(0.0967)
Rural		−0.0227		−0.0207		−0.0337*		−0.0340**
		(0.0173)		(0.0173)		(0.0173)		(0.0173)
Constant	2.6963***	2.7631***	2.6923***	2.7576***	2.7212***	2.7908***	2.7152***	2.7846***
	(0.0799)	(0.0865)	(0.0798)	(0.0864)	(0.0793)	(0.0857)	(0.0793)	(0.0857)
State Fixed Effects included	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
N	11,868	11,868	11,868	11,868	11,868	11,868	11,868	11,868
R^2	0.1413	0.1445	0.1417	0.1449	0.1420	0.1453	0.1425	0.1457

Robust Standard errors in parentheses. *$p<0.1$, **$p<0.05$, ***$p<0.01$

month or six-month) preceding the survey. These findings indicate that higher levels of conflict intensity consistently increase residents' perceptions of physical insecurity, which supports Hypothesis 1.

My results support the conventional understanding that residents are likely to perceive heightened physical insecurity when exposed to conflict events in their immediate surroundings. This relationship is plausible given that the literature on conflict zones has documented several relevant phenomena, including direct threats to life and property (Andersson et al., 1995; Adelaja & George, 2019), a breakdown of law and order (Baker, 2017), the threat of forced recruitment (McIntyre, 2003), and the disruption of livelihoods (Gates et al., 2012). While my data cannot determine which of these factors is most significant for my respondents, the overall result confirms that the psychological burden of conflict is acutely felt by people near violence.

4.2. Urban residents vs. rural residents

To gain a comprehensive understanding of the role of location (urban versus rural), I investigate how location moderates the relationship between conflict intensity and residents' perceptions of physical insecurity. Specifically, I divide the full sample into two subsamples based on household location, (i)urban areas and (ii)rural areas, and estimate the model separately for each. Additionally, to formally evaluate potential urban-rural heterogeneity, I estimate an alternative specification that includes an interaction term between the rural location dummy (base category: urban) and the conflict intensity measure. Table 5 presents the estimation results, which yield several important findings.[3)]

The subsample analyses reveal that the coefficients of conflict intensity on rural residents' perceptions of physical insecurity are consistently positive and statistically significant at the 1 percent level across all models, whereas the corresponding coefficients for urban residents are generally insignificant. Moreover, the full sample analysis shows that the interaction terms between the rural location dummy and conflict intensity are significantly positive in models where conflict-induced fatalities are used as the measure of conflict intensity. These findings indicate that rural residents' perceptions of physical insecurity are more sensitive to conflict-related shocks than those of urban residents, providing support for Hypothesis 2.

My findings confirm that the effect of conflict intensity on perceived physical insecurity is stronger for rural residents than for urban residents. Several factors contribute to this disparity in Myanmar. First, rural areas are usually the center and frontline of armed conflict, making rural residents more vulnerable to its effects (Londoño et al., 2012; Sánchez-Céspedes, 2017; Forsyth & Springate-Baginski, 2022; UN, 2023; Zhu et al., 2025). Second, armed groups frequently engage in forced recruitment and mobilization within rural communities (AI, 2003; Richards, 2014; Eck, 2014; Myanmar Peace Monitor, 2025b). Finally, the

Table 5. Urban-rural differences in the relationship between conflict and residents' perception of physical insecurity (OLS)

	Subsample		Full sample	Subsample		Full sample	Subsample		Full sample	Subsample		Full sample
	Urban	Rural		Urban	Rural		Urban	Rural		Urban	Rural	
Events during the 3-month pre-survey period	0.0906	0.1385***	0.1260**									
	(0.0592)	(0.0367)	(0.0549)									
Events during the 6-month pre-survey period				0.0650**	0.0815***	0.0861***						
				(0.0325)	(0.0203)	(0.0302)						
Fatalities during the 3-month pre-survey period							0.0646	0.1488***	0.0172			
							(0.0666)	(0.0269)	(0.0598)			
Fatalities during the 6-month pre-survey period										0.0648	0.1153***	0.0284
										(0.0499)	(0.0197)	(0.0447)
Rural			−0.0308			−0.0250			−0.0502***			−0.0516***
			(0.0211)			(0.0211)			(0.0183)			(0.0186)
Rural x Event (3 months)			0.0371									
			(0.0624)									
Rural x Event (6 months)						0.0110						
						(0.0346)						
Rural x Fatalities (3 months)									0.1417**			
									(0.0626)			
Rural x Fatalities (6 months)												0.0971**
												(0.0465)
Constant	2.7746***	2.6780***	2.7697***	2.7637***	2.6777***	2.7611***	2.7951***	2.6872***	2.8064***	2.7876***	2.6823***	2.8007***
	(0.1593)	(0.1018)	(0.0873)	(0.1593)	(0.1017)	(0.0872)	(0.1580)	(0.1012)	(0.0860)	(0.1580)	(0.1012)	(0.0861)
Respondent's characteristics Included	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Household's characteristics Included	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
State Fixed Effects included	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
N	3,495	8,373	11,868	3,495	8,373	11,868	3,495	8,373	11,868	3,495	8,373	11,868
R^2	0.1591	0.1408	0.1446	0.1595	0.1409	0.1449	0.1588	0.1428	0.1457	0.1590	0.1431	0.1461

Robust Standard errors in parentheses. $^{*}p<0.1$, $^{**}p<0.05$, $^{***}p<0.01$

violence and criminal cases tend to be more prevalent in rural areas due to weak law enforcement, which is often unable to provide adequate protection to the rural communities during the armed conflict (Eck, 2018; Vallejo et al., 2018; Myanmar Peace Monitor, 2023, 2024).

4.3. Resident's gender

To conduct a more comprehensive investigation of gender-based differences, this study examines potential heterogeneity in the effect of armed conflict on residents' perceptions of physical insecurity by respondent gender. The full sample is divided into two subsamples: (i)male respondents and (ii)female respondents, and the model is estimated separately for each group. Additionally, to formally test for gender-based heterogeneity, I estimate an alternative specification that includes an interaction term between the gender dummy variable (base category: male) and the conflict intensity measure. Table 6 presents the estimation results, highlighting several significant findings regarding gender-specific differences in the perceived impact of armed conflict.[4)]

The subsample analyses reveal that the coefficients on conflict intensity are consistently positive and statistically significant at the 1 percent level for both male and female respondents across all models. Notably, the magnitude of these coefficients is consistently larger for male respondents than for female respondents. Moreover, the full-sample analysis shows that the interaction terms between the gender dummy and conflict intensity are significantly positive in models that use conflict events and conflict-induced fatalities during the six-month pre-survey period as measures of conflict intensity. These results confirm that male respondents' perceptions of physical insecurity are more sensitive to conflict-related shocks than those of female respondents, providing empirical support for Hypothesis 3.

Several factors help explain the observed gender disparity in Myanmar. First, during periods of conflict, males face a higher risk of direct exposure to violence, as armed groups are more likely to target and attack men than women (Schäfer, 2013; Daw et al., 2019; Park & Pelletier, 2020). Second, males are at greater risk of arrest and detention by armed groups, as they are more frequently suspected of being opponents or spies (Bornstein, 2010; Al Jazeera, 2021). Finally, armed groups often forcefully recruit or attract males into their ranks (Schäfer, 2013; Child Soldiers International, 2015; Human Rights Watch, 2023; Myanmar Peace Monitor, 2025c).

4.4. Combining residents' location and gender

This study further investigates gender-based heterogeneity across different locations (rural and urban) by dividing the full sample into four subsamples: (i)rural males, (ii)rural females, (iii)urban males, and (iv)urban females. I then examine how conflict intensity influences residents' perceptions of physical insecurity within each subsample. Tables 7 and 8

Table 6. Respondent's gender difference in the relationship between conflict and residents' perception of physical insecurity (OLS)

	Subsample		Full sample	Subsample		Full sample	Subsample		Full sample	Subsample		Full sample
	Male	Female		Male	Female		Male	Female		Male	Female	
Events during the 3-month pre-survey period	0.1948*** (0.0480)	0.1188*** (0.0401)	0.1937*** (0.0442)									
Events during the 6-month pre-survey period				0.1358*** (0.0267)	0.0611*** (0.0217)	0.1306*** (0.0247)						
Fatalities during the 3-month pre-survey period							0.1688*** (0.0402)	0.1172*** (0.0322)	0.1802*** (0.0377)			
Fatalities during the 6-month pre-survey period										0.1391*** (0.0293)	0.0901*** (0.0235)	0.1455*** (0.0272)
Gender			−0.0849*** (0.0168)			−0.0770*** (0.0166)			−0.0904*** (0.0147)			−0.0884*** (0.0149)
Gender x Event (3 months)			−0.0712 (0.0537)									
Gender x Event (6 months)						−0.0646** (0.0300)						
Gender x Fatalities (3 months)									−0.0622 (0.0444)			
Gender x Fatalities (6 months)												−0.0527* (0.0320)
Constant	2.7380*** (0.1224)	2.6846*** (0.1213)	2.7548*** (0.0868)	2.7146*** (0.1225)	2.6907*** (0.1211)	2.7427*** (0.0868)	2.7807*** (0.1209)	2.7008*** (0.1206)	2.7882*** (0.0858)	2.7706*** (0.1209)	2.6981*** (0.1206)	2.7807*** (0.0858)
Respondent's characteristics Included	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Household's characteristics Included	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
State Fixed Effects included	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
N	5,924	5,944	11,868	5,924	5,944	11,868	5,924	5,944	11,868	5,924	5,944	11,868
R^2	0.1403	0.1510	0.1447	0.1419	0.1508	0.1454	0.1406	0.1518	0.1455	0.1414	0.1520	0.1460

Robust Standard errors in parentheses. *$p<0.1$, **$p<0.05$, ***$p<0.01$

Table 7. Respondent's gender difference in the relationship of conflict (events) with residents' perception of physical insecurity in rural and urban areas

	Rural				Urban			
	Male		Female		Male		Female	
Events during the 3-month pre-survey period	0.1568*** (0.0574)		0.1234*** (0.0471)		0.1563* (0.0911)		0.0074 (0.0786)	
Events during the 6-month pre-survey period		0.1125*** (0.0324)		0.0598** (0.0257)		0.1143** (0.0504)		0.0068 (0.0425)
Constant	2.5836*** (0.1432)	2.5681*** (0.1432)	2.6905*** (0.1423)	2.7004*** (0.1421)	2.8059*** (0.2313)	2.7817*** (0.2312)	2.5500*** (0.2210)	2.5486*** (0.2211)
Respondent's characteristics Included	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Household's characteristics Included	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
State Fixed Effects included	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
N	4,165	4,165	4,208	4,208	1,759	1,759	1,736	1,736
R^2	0.1403	0.1414	0.1487	0.1482	0.1611	0.1623	0.1736	0.1736

Robust Standard errors in parentheses. $^{*}p<0.1$, $^{**}p<0.05$, $^{***}p<0.01$

Table 8. Respondent's gender difference in the relationship of conflict (fatalities) with residents' perception of physical insecurity in rural and urban areas

	Rural				Urban			
	Male		Female		Male		Female	
Fatalities during the 3-month pre-survey period	0.1726*** (0.0439)		0.1237*** (0.0342)		0.0542 (0.0948)		0.0320 (0.0900)	
Fatalities during the 6-month pre-survey period		0.1344*** (0.0316)		0.0945*** (0.0252)		0.0751 (0.0767)		0.0198 (0.0641)
Constant	2.5974*** (0.1420)	2.5892*** (0.1421)	2.6962*** (0.1415)	2.6941*** (0.1416)	2.8589*** (0.2282)	2.8436*** (0.2281)	2.5476*** (0.2208)	2.5476*** (0.2207)
Respondent's characteristics Included	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Household's characteristics Included	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
State Fixed Effects included	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
N	4,165	4,165	4,208	4,208	1,759	1,759	1,736	1,736
R^2	0.1424	0.1429	0.1502	0.1503	0.1596	0.1600	0.1737	0.1736

Robust Standard errors in parentheses. $^{*}p<0.1$, $^{**}p<0.05$, $^{***}p<0.01$

present the OLS estimation results, using conflict events and conflict-induced fatalities as alternative measures of conflict intensity. The findings highlight a clear rural-urban and gender-based disparities in how conflict intensity shapes perceived physical insecurity, supporting my baseline results related to Hypotheses 2 and 3. Consistent with Hypothesis 2, rural residents' perceptions are generally more sensitive to conflict intensity than those of urban residents, with the exception of rural males when conflict events are used as the conflict intensity measure. In addition, in line with Hypothesis 3, male residents' perceptions are more sensitive to conflict intensity than those of female residents, regardless of location. The results also reveal that while rural female residents' perceptions are significantly affected by conflict intensity, their urban counterparts show no such response.

5. Conclusion

This study has examined how armed conflict influences residents' perceptions of physical insecurity in Myanmar, utilizing integrated household survey data (MHWS) and geocoded conflict event data (ACLED). The findings support Hypothesis 1, demonstrating that higher conflict intensity significantly increases residents' perceived physical insecurity. Several factors may explain this relationship, including casualties, disruption of socio-economic conditions, forced recruitment, weakened law enforcement capacity, rising criminal activity, and the spread of rumors and propaganda by armed groups (Tønnesson et al., 2022; Chen et al., 2023; Myanmar Peace Monitor, 2023; GI-TOC, 2023: Taylor, 2024; Samet et al., 2024; Scarpino & Schochet, 2024). These findings highlight the importance of reaching ceasefire agreements between the government and non-state actors, as well as promoting peacebuilding initiatives, both of which are crucial for alleviating residents' perceptions of physical insecurity.

In addition, this study revealed that the effects of conflict intensity differ across two key dimensions: (1)location (rural versus urban areas) and (2)respondents' gender. The location-based findings support Hypothesis 2, showing that the impact of conflict intensity on perceived physical insecurity is more pronounced among rural residents compared to their urban counterparts. This stronger association in rural areas aligns with the characterization of these regions as the primary frontlines of Myanmar's conflict (Londoño et al., 2012; Sánchez-Céspedes, 2017; Forsyth & Springate-Baginski, 2022). Moreover, the results concerning gender disparities support Hypothesis 3, indicating that the effect of conflict intensity on perceived physical insecurity is stronger among males than females. This heightened sensitivity among males is consistent with the well-documented pattern of men being more frequently targeted for direct violence and forced recruitment by armed groups (Daw et al., 2019; Meagher et al., 2021).

Based on the findings of this study, policymakers should design targeted interventions to address public security concerns in Myanmar during the period of political instability. These interventions must account for the distinct needs and vulnerabilities across locations (urban vs. rural) and between genders (male vs. female). First, priority should be given to engaging all non-state actors, including political organizations and armed groups, in the Nationwide Ceasefire Agreement (NCA). Both state and non-state actors should work collaboratively to revise and strengthen the agreement in ways that are mutually acceptable. A more robust and inclusive peace agreement is critical for achieving sustainable peace and a permanent ceasefire, particularly in rural, conflict-affected areas where violence is more frequent. Second, policymakers should actively promote dialogue and conflict resolution by fostering cooperation with non-state actors. This includes facilitating regular and frequent formal and informal meetings to reduce tensions and resolve disputes, especially in areas most affected by conflict. Such dialogues should include representatives of both genders from both urban and rural communities, recognizing that perceptions and experiences of insecurity vary widely by location and gender. Third, enhancing law enforcement capacity and improving public safety should be a key focus. Policymakers should collaborate with non-state actors to strengthen law enforcement mechanisms and reduce crime in both rural and urban areas. Finally, combating disinformation and rebuilding public trust are essential. Policymakers, in partnership with both public and private media outlets, should ensure the timely dissemination of accurate and reliable information. Communication strategies must be tailored to different geographic and gender contexts, employing media platforms that effectively reach diverse populations.

This study provided valuable insights into the relationship between armed conflict and residents' perceptions of physical insecurity in Myanmar. However, several limitations should be acknowledged. First, this study relies on cross-sectional data, which limits its ability to track changes in perceptions over time or establish causal relationships. Future research could address these issues by employing panel datasets. Second, there are challenges in accurately measuring conflict exposure in terms of both time and location when integrating household survey data with ACLED conflict incident data. Future studies should consider using more precise geospatial data sources, such as high-resolution geolocation datasets or satellite imagery, to improve the accuracy of conflict impact assessments. Finally, while this study focuses on the Myanmar-specific context, comparative research across different conflict-affected regions could help identify both generalizable patterns and context-specific differences in how armed conflict shapes perceptions of physical insecurity. Addressing these limitations would enable future research to provide stronger evidence to support humanitarian organizations and governments in designing more effective policies and strategies to reduce security concerns and protect vulnerable populations in conflict-affected areas.

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Notes

1) In this analysis, 'states' imply subnational administrative areas in Myanmar, which comprises 7 states, 7 regions, and 1 union territory. Additionally, Shan State is subdivided into 3 substates (Northern, Eastern, and Southern), resulting in a total of 17 geographic units in the dataset.
2) I also estimate an ordered logit model as a robustness check to ensure the empirical validity of my baseline findings. The ordered logit estimate takes the functional form of the dependent variable, an ordinal measure of physical insecurity. The estimated results of ordered logit estimates are generally consistent with my baseline results of the OLS (Table A1 in the appendix).
3) The estimated results of ordered logit estimates are generally consistent with my baseline results of the OLS (Table A2 in the appendix).
4) The estimated results of ordered logit estimates are generally consistent with my baseline results of the OLS (Table A3 in the appendix)

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Appendix

Table A1. Conflict and residents' perception of physical insecurity (ordered logit models)

	(1)	(2)	(3)	(4)
Events during the 3-month pre-survey period	0.4783***			
	(0.0677)			
Events during the 6-month pre-survey period		0.3175***		
		(0.0378)		
Fatalities during the 3-month pre-survey period			0.4395***	
			(0.0546)	
Fatalities during the 6-month pre-survey period				0.3743***
				(0.0399)
/cut1	−3.1019***	−3.0756***	−3.1865***	−3.1710***
	(0.2167)	(0.2167)	(0.2153)	(0.2154)
/cut2	−0.8493***	−0.8199***	−0.9311***	−0.9114***
	(0.2141)	(0.2141)	(0.2127)	(0.2128)
/cut3	0.9571***	0.9885***	0.8756***	0.8981***
	(0.2162)	(0.2163)	(0.2148)	(0.2149)
Respondent's characteristics included	Yes	Yes	Yes	Yes
Household's characteristics	Yes	Yes	Yes	Yes
N	11,868	11,868	11,868	11,868
Pseudo R2	0.0498	0.0506	0.0504	0.0515
Log Pseudo likelihood	−12900.756	−12889.658	−12892.095	−12877.79
Wald chi2 (16)	1271.88	1295.62	1261.84	1291.04
Prob>chi2	0.0000	0.0000	0.0000	0.0000

Robust Standard errors in parentheses. *$p<0.1$, **$p<0.05$, ***$p<0.01$

Table A2. Urban-rural differences in the relationship of conflict with residents' perception of physical insecurity (ordered logit models)

	Urban	Rural	Urban	Rural	Urban	Rural	Urban	Rural
Events during the 3-month pre-survey period	0.3239**	0.5238***						
	(0.1358)	(0.0777)						
Events during the 6-month pre-survey period			0.2684***	0.3351***				
			(0.0752)	(0.0437)				
Fatalities during the 3-month pre-survey period					0.0930	0.4751***		
					(0.1688)	(0.0563)		
Fatalities during the 6-month pre-survey period							0.2311*	0.3873***
							(0.1297)	(0.0412)
/cut1	−3.2455***	−2.7368***	−3.1767***	−2.7282***	−3.3633***	−2.7827***	−3.3096***	−2.7662***
	(0.4149)	(0.2539)	(0.4148)	(0.2538)	(0.4113)	(0.2529)	(0.4107)	(0.2531)
/cut2	−0.8555**	−0.5361**	−0.7827*	−0.5247**	−0.9762**	−0.5762**	−0.9206**	−0.5554**
	(0.4103)	(0.2514)	(0.4105)	(0.2513)	(0.4062)	(0.2504)	(0.4057)	(0.2506)
/cut3	0.9895**	1.2525***	1.0645***	1.2656***	0.8667**	1.2143***	0.9235**	1.2381***
	(0.4126)	(0.2543)	(0.4128)	(0.2542)	(0.4084)	(0.2533)	(0.4078)	(0.2535)
Respondent's characteristics Included	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Household's characteristics Included	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
N	3,495	8,373	3,495	8,373	3,495	8,373	3,495	8,373
Pseudo R2	0.0514	0.0465	0.0524	0.0472	0.0506	0.0479	0.0512	0.0489
Log Pseudo likelihood	−3846.4938	−9026.9904	−3842.4985	−9020.1582	−3849.5547	−9014.0257	−3847.4107	−9004.0692
Wald chi2 (15)	382.58	844.37	388.05	862.81	377.13	847.24	380.96	872.48
Prob>chi2	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

Robust Standard errors in parentheses. *$p<0.1$, **$p<0.05$, ***$p<0.01$

Table A3. Respondent's gender difference in the relationship of conflict with residents' perception of physical insecurity (ordered logit models)

	Male	Female	Male	Female	Male	Female	Male	Female
Events during the 3-month pre-survey period	0.6309***	0.3516***						
	(0.1021)	(0.0901)						
Events during the 6-month pre-survey period			0.4425***	0.2158***				
			(0.0573)	(0.0499)				
Fatalities during the 3-month pre-survey period					0.5715***	0.3386***		
					(0.0894)	(0.0686)		
Fatalities during the 6-month pre-survey period							0.4827***	0.2894***
							(0.0636)	(0.0509)
/cut1	−2.9402***	−2.9818***	−2.8756***	−2.9814***	−3.0774***	−3.0254***	−3.0578***	−3.0113***
	(0.2926)	(0.3193)	(0.2930)	(0.3191)	(0.2900)	(0.3178)	(0.2899)	(0.3181)
/cut2	−0.7704***	−0.6323**	−0.6990**	−0.6310**	−0.9047***	−0.6732**	−0.8792***	−0.6561**
	(0.2899)	(0.3151)	(0.2904)	(0.3149)	(0.2871)	(0.3136)	(0.2870)	(0.3139)
/cut3	1.0462***	1.1643***	1.1225***	1.1658***	0.9116***	1.1244***	0.9406***	1.1438***
	(0.2933)	(0.3178)	(0.2938)	(0.3176)	(0.2904)	(0.3162)	(0.2902)	(0.3166)
Respondent's characteristics Included	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Household's characteristics Included	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
N	5,924	5,944	5,924	5,944	5,924	5,944	5,924	5,944
Pseudo R2	0.0453	0.0538	0.0470	0.0541	0.0459	0.0545	0.0474	0.0552
Log Pseudo likelihood	−6612.1745	−6273.6639	−6600.1252	−6272.0765	−6608.0032	−6269.3622	−6597.7317	−6264.5767
Wald chi2 (15)	579.99	688.33	603.88	691.26	571.93	684.09	587.26	696.83
Prob>chi2	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

Robust Standard errors in parentheses. *$p<0.1$, **$p<0.05$, ***$p<0.01$