



## Household-Level Impacts of the March 2025 Earthquake in Myanmar

### Findings from the Ninth Round of the Myanmar Household Welfare Survey (July-October 2025)

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This report presents key findings on the impacts of the earthquake that hit Myanmar on March 28, 2025, along with insights into the ongoing recovery, based on the ninth round of the Myanmar Household Welfare Survey (MHWS), a nationally and regionally representative phone survey. This survey was conducted between July and October 2025, with a recall period covering April to October.

#### Key Findings

- Nay Pyi Taw and Mandalay recorded the highest proportions of households reporting negative effects of the earthquake, including lasting impacts.
- Urban households consistently reported higher rates of negative impacts, including housing damage, asset loss, and ongoing access constraints compared with rural households.
- Within the most affected areas, large shares of households reported damage to their homes, while 2 percent of households nationally reported losing their homes.
- Households in earthquake-affected areas experienced worse livelihood outcomes after the earthquake, including fewer employment sources, employment loss, reduced asset ownership, a decline in livestock ownership and lower food consumption scores.
- Nationally, about 21 percent of affected households reported receiving assistance, while only 6 percent reported that assistance was ongoing at the time of the survey.

#### Recommended Actions

- Invest in restoring household income and employment, particularly wage and salaried work, to address the main channel through which earthquake impacts persist.
- Prioritize recovery support that restores housing, productive assets, and access to basic services in the most affected urban centers and surrounding areas.



#### Livelihoods and Food Security Fund

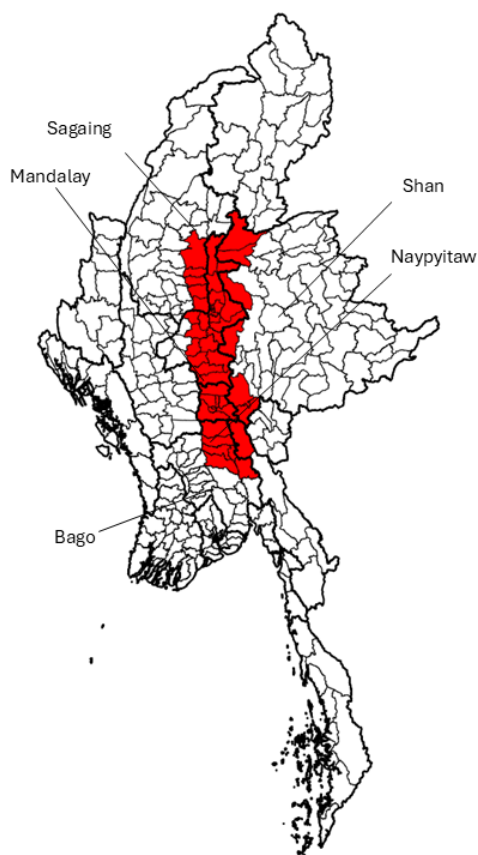


## Introduction

A powerful 7.7-magnitude earthquake struck central Myanmar on March 28, 2025, causing catastrophic damage to infrastructure and civilian life. Centered near the Sagaing and Mandalay regions—home to large populations of internally displaced people—the quake also devastated Nay Pyi Taw, Bago, and southern Shan State. According to UNHCR estimates from April 2025, the humanitarian toll of the quake was immense, with 6.3 million people needing urgent support. The tragedy resulted in 3,700 confirmed deaths, 5,100 injuries, and 115 people still missing. This devastation exacerbates a critical humanitarian situation, increasing the suffering of both local and uprooted populations in areas with highly restricted access to aid (UNHCR 2025a). With roughly 17.2 million people residing in the affected areas, the disaster has drastically heightened the vulnerability of these already conflict-affected residents (UNHCR 2025b).

This note presents key evidence of the impacts, recovery, and key ongoing challenges following the March 28th earthquake, using data from the ninth round of the Myanmar Household Welfare Survey (MHWS). The ninth round of MHWS, a nationally and regionally representative phone survey, was conducted between July and October 2025, with a recall period covering April to October 2025. It builds on eight previous rounds implemented since December 2021. Our focus is on townships within a seismic magnitude of 7 or greater, which we define as the earthquake-affected area (Figure 1).<sup>1</sup> This geographic boundary provides a consistent basis for distinguishing households most directly exposed to the earthquake's effects.

**Figure 1. Townships experienced seismic magnitude of 7 or greater**



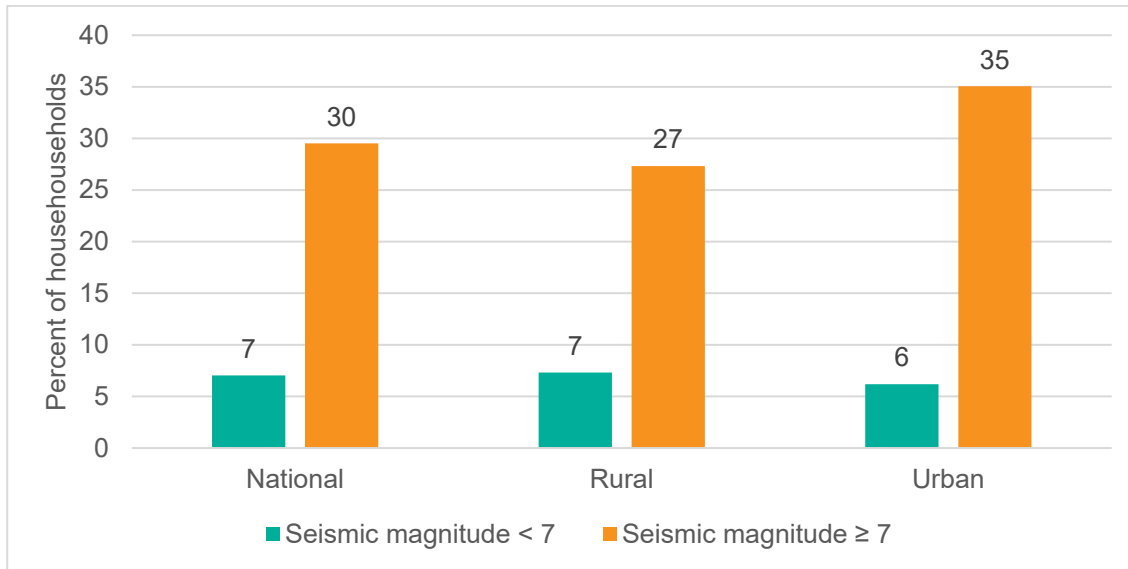
Sources: Authors' calculations based on USGS M 7.7 - 2025 Mandalay, Burma (Myanmar) Earthquake

<sup>1</sup> A list of townships included in the seismic magnitude area of 7 or greater is available in the appendix.

## Earthquake Exposure and Household Impacts

Within the magnitude 7 or greater seismic boundary, about 30 percent of households reported being negatively affected by the earthquake, compared to only 7 percent of households outside the boundary (Figure 2). Notably, urban households within the affected area reported higher impacts than rural households, with 35 percent of urban households reporting negative effects compared to 27 percent of rural households. These differences underscore the concentrated severity of impacts within the high-magnitude zone and highlight the greater negative impact in urban areas.

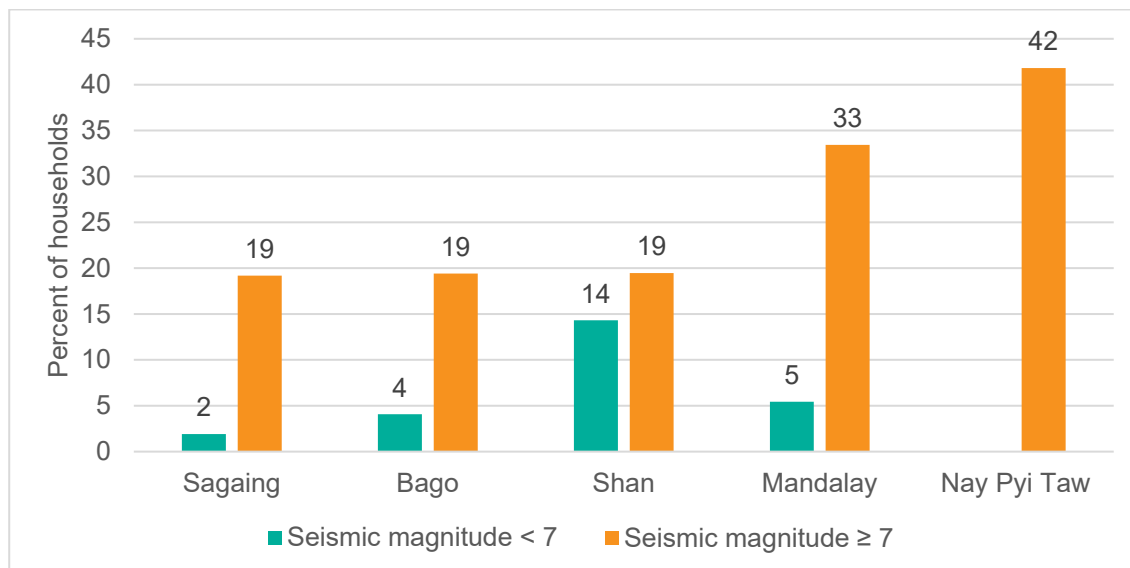
**Figure 2. Percentage of households negatively affected by the earthquake, nationally and by rural and urban**



Source: Authors' calculations based on MHWS round 9.

Figure 3 further disaggregates earthquake impacts by region, with all townships in Nay Pyi Taw falling within areas exceeding a magnitude of 7. **Households in the most severely hit areas reported the highest rates of negative impacts, with 42 percent of households in Nay Pyi Taw reporting negative effects, followed by 33 percent in Mandalay and about 19 percent in Shan, Sagaing, and Bago.** Even outside the magnitude 7 boundary, 14 percent of households in Shan reported negative effects, indicating that the earthquake's consequences extended beyond the most severely affected zone. The particularly high shares observed in Nay Pyi Taw and Mandalay point to substantial regional concentration of shock exposure and potential recovery needs.

**Figure 3. Percentage of households who were negatively affected by the earthquake, nationally and by seismic magnitude  $\geq 7$  areas**

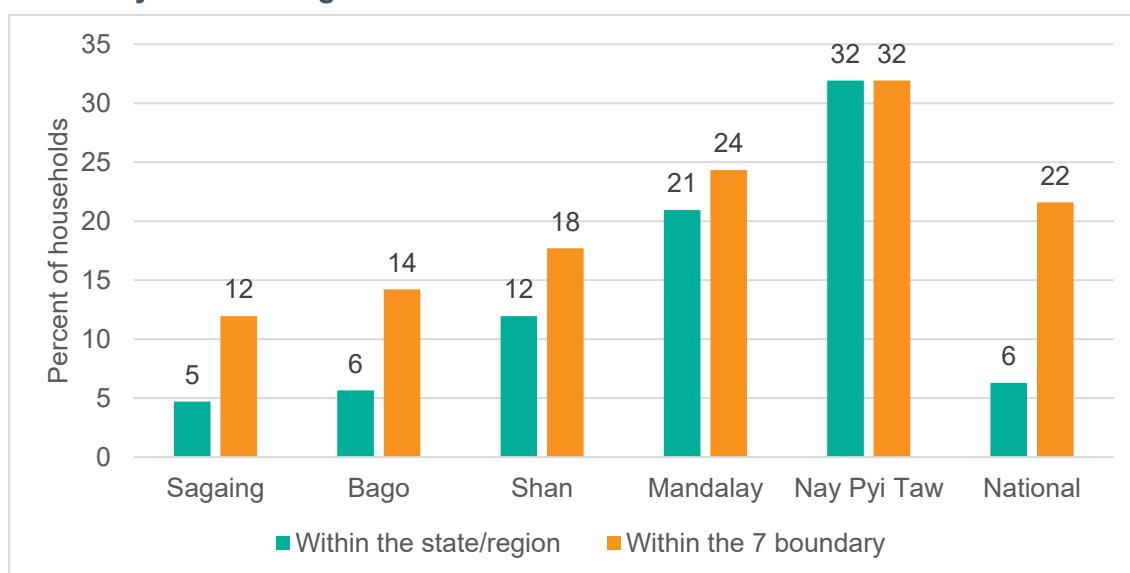


Source: Authors' calculations based on MHWS round 9.

### ***Housing and Asset Damage***

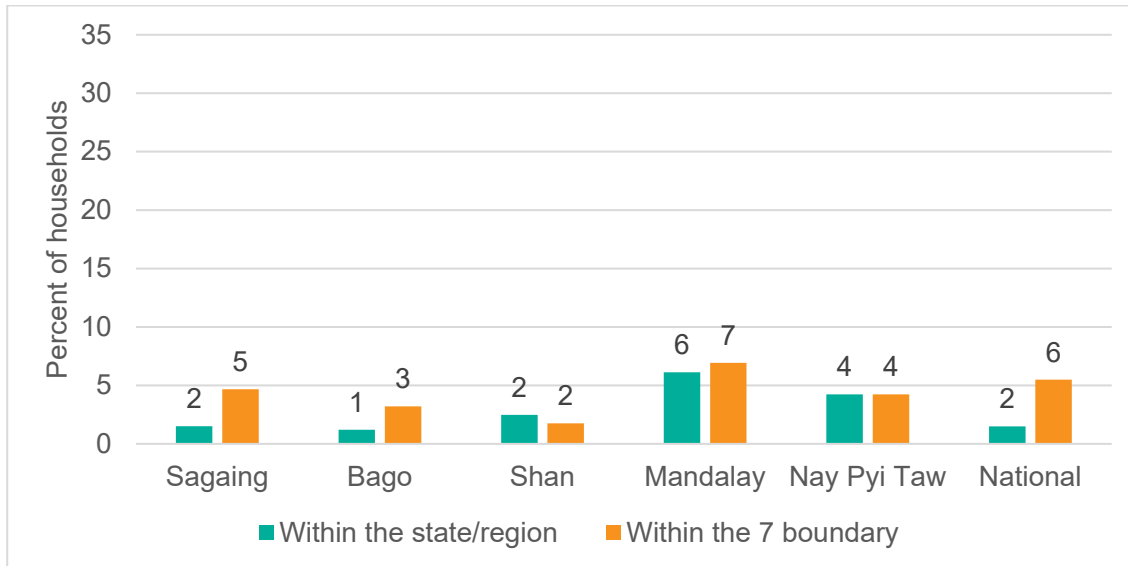
Figure 4 and Figure 5 document housing damage resulting from the earthquake. **Within the magnitude 7 or greater impact area, 22 percent of households reported that their homes were damaged but remained livable, while 6 percent reported that their homes were damaged and not livable. Nationwide, nearly two percent of households reported losing their homes completely.** Housing damage was most prevalent in Nay Pyi Taw, where 32 percent of households reported some form of damage, while Mandalay recorded the highest share of households reporting complete home loss. These findings underscore the severity of physical destruction caused by the earthquake.

**Figure 4. Percentage of households reporting house damaged but still livable, nationally and by seismic magnitude  $\geq 7$  areas**



Source: Authors' calculations based on MHWS round 9.

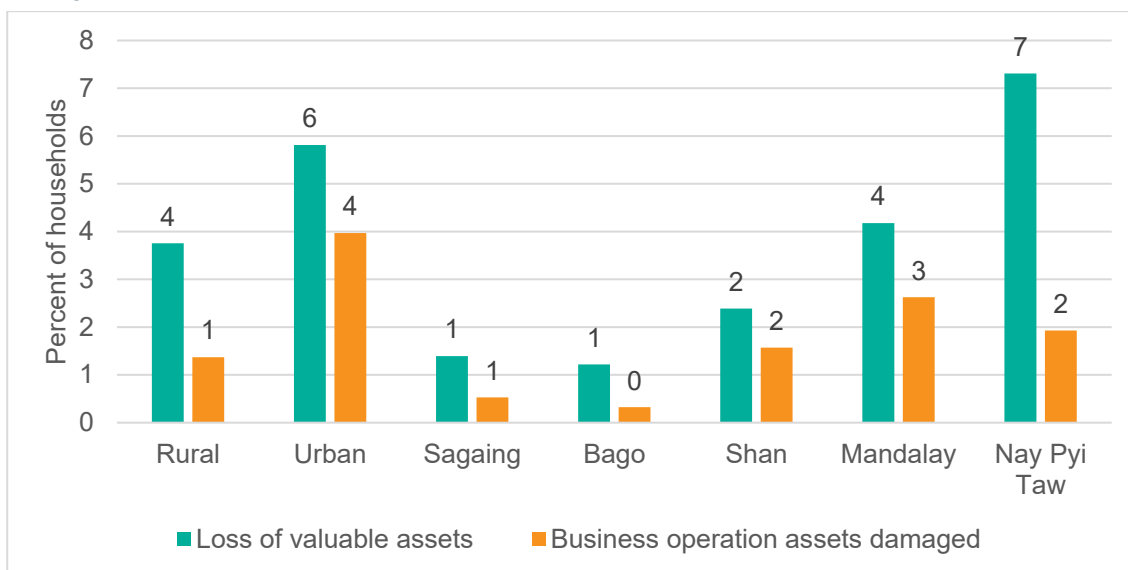
**Figure 5. Percentage of households reporting their house is not livable, nationally and by seismic magnitude  $\geq 7$  areas**



Source: Authors' calculations based on MHWS round 9.

Figure 6 illustrates losses of valuable and productive assets among households in the severely affected area. **Within this zone, 4 percent of households reported losing valuable assets and 2 percent reported losing business assets. Asset losses were more common among urban households than rural households, reflecting greater exposure of physical and productive capital in urban settings.** In Nay Pyi Taw, 7 percent of households reported losing valuable assets, followed by 4 percent in Mandalay, where 3 percent also reported losses of business assets. Although these percentages may appear small, losses of productive assets can have long-lasting consequences for household livelihoods and recovery trajectories, and therefore these losses are significant.

**Figure 6. Percentage of households in the seismic magnitude  $\geq 7$  area that lost assets and by rural and urban**



Source: Authors' calculations based on MHWS round 9.

## Livelihood Disruptions

In addition to damage to homes and assets, households' livelihoods were also critically affected. **Figure 7 shows the impact of the earthquake on wage and salaried employment in the affected area, highlighting substantial disruptions to earning potential.** In Shan, 19 percent of households reported reduced working hours or less available work, followed by Mandalay (16 percent) and Sagaing (14 percent). Moreover, 18 percent of households in Shan reported low or reduced wages, compared to 5 percent nationally, 6 percent in Mandalay, and 4 percent in Sagaing.

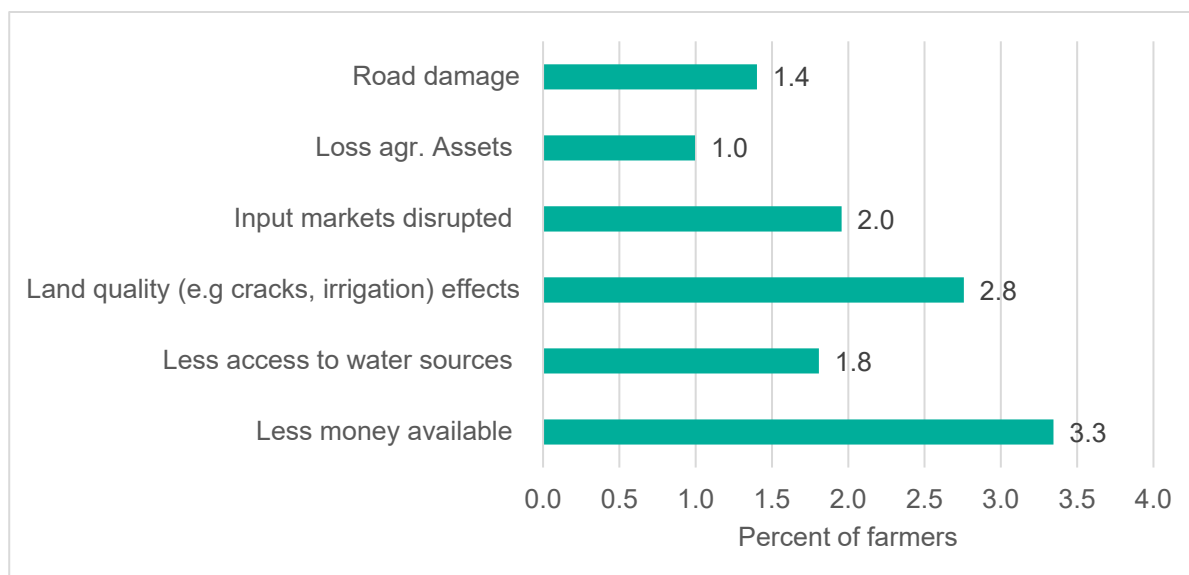
**Figure 7. Percentage of households reporting challenges in wage or salary employment, nationally and by seismic magnitude  $\geq 7$  areas**



Source: Authors' calculations based on MHWS round 9.

Of the 4,845 crop farmers interviewed in the Myanmar Agricultural Performance Survey (MAPS) between August 11th and October 26th, 2025, 3,704 farmers who were growing a crop were asked about the impact of earthquake on their crop production. About 6 percent said their household was negatively affected by the earthquake. Among these farmers, 3 percent reported that they did not have enough money to invest in farming, since they used their resources for house repairs or other earthquake recovery needs, while nearly 3 percent of farm households cited land-related issues, including irrigation and soil problems because of the earthquake (Figure 8).

**Figure 8. Percentage of farm households reporting negative effects of earthquake on their farming**

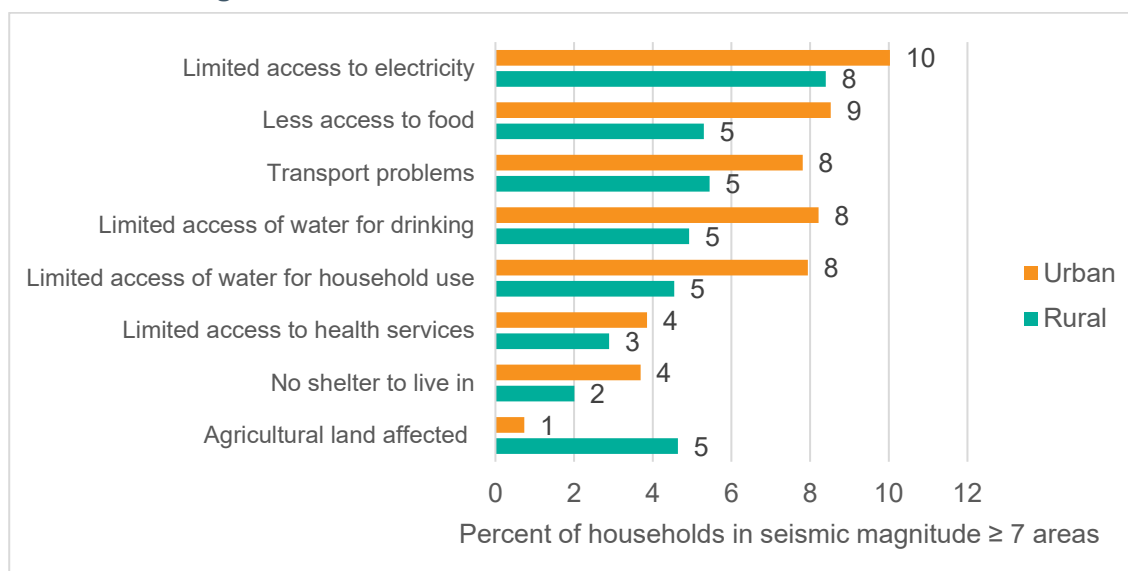


Source: Authors' calculations based on MAPS round 7.

### Access to Services and Continued Hardship

The earthquake also triggered broader disruptions to basic infrastructure and essential services. Figure 9 presents the share of households within the seismic magnitude  $\geq 7$  area that continue to experience earthquake-related difficulties, disaggregated by urban and rural locations. **Urban households are more likely than rural households to report ongoing negative impacts. For both groups, the most commonly reported difficulty is limited access to electricity, followed by reduced access to food.** Transportation challenges, largely driven by infrastructure damage, are also prominent, along with limited access to water for drinking and household use. The persistence of these constraints underscores the prolonged nature of recovery, and the compounding challenges households continue to face well after the initial shock.

**Figure 9. Percentage of households still experiencing earthquake-related difficulties in seismic magnitude  $\geq 7$  areas**



Source: Authors' calculations based on MHWS round 9.

Table 1 summarizes the share of households in the earthquake-affected areas that continue to face difficulties, disaggregated by region. **Nay Pyi Taw and Mandalay consistently report the highest levels of difficulty across most categories because of the earthquake, particularly limited access to electricity (13 percent and 11 percent, respectively), transportation problems (11 percent and 6 percent, respectively), and restricted access to water for drinking and household use.** Limited access to food also remains a concern, especially in Mandalay and Nay Pyi Taw (both 8 percent). In contrast, these reported difficulties are generally lower in Shan and Bago. While the percentages may appear modest, they represent continued disruptions to essential services and livelihoods for a substantial number of households, highlighting the slow and uneven nature of recovery across regions.

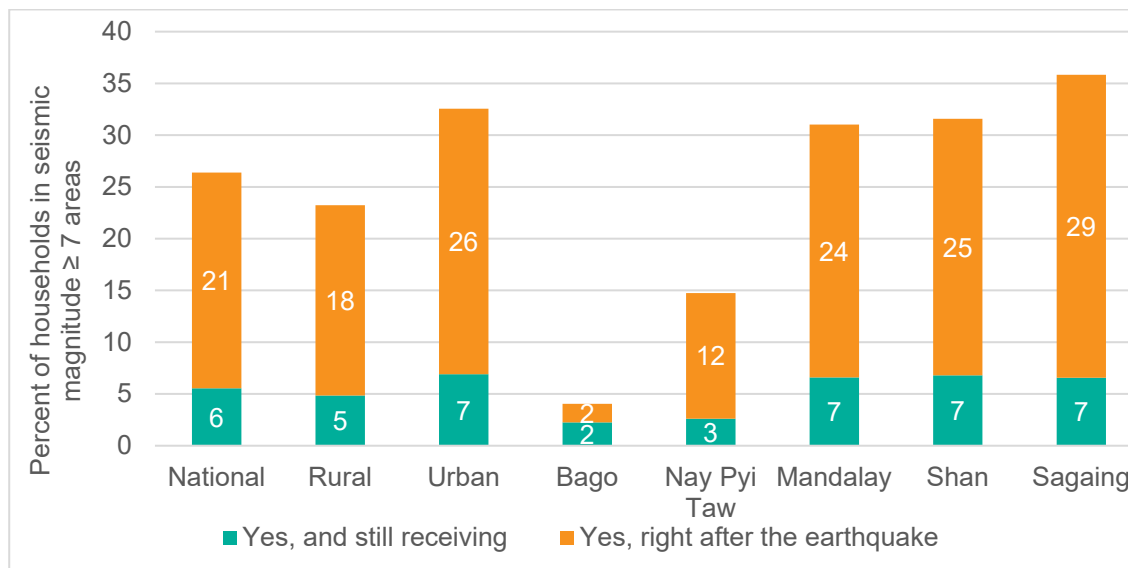
**Table 1. Percentage of households in earthquake-affected areas still experiencing difficulties, by region**

	Sagaing	Bago	Shan	Mandalay	Nay Pyi Taw
Limited access to electricity	6.0	4.5	2.2	10.7	12.6
Less access to food	4.4	2.4	2.4	7.8	7.5
Transport problems	5.4	4.0	2.9	6.2	10.5
Limited access of water for drinking	6.1	2.6	2.4	6.0	10.1
Limited access of water for household use	5.0	2.2	1.1	6.5	7.7
Agricultural land affected (irrigation, cracks land)	3.2	4.1	0.4	3.4	5.6
Limited access to health services	1.7	2.1	0.0	4.2	3.3
No shelter to live in	1.6	1.1	0.0	3.3	2.6

Source: Authors' calculations based on MHWS round 9.

Figure 10 reports the proportion of households within the magnitude 7 or greater boundary that received post-earthquake assistance and the share that continues to receive support. **Nationally, about 21 percent of affected households reported receiving assistance, while only 6 percent reported that assistance was ongoing.** Urban households were more likely than rural households to receive support. Assistance coverage was lowest in Bago, followed by Nay Pyi Taw, while substantially higher in Mandalay, Shan, and Sagaing. These disparities matter because uneven access to assistance can shape recovery outcomes and may exacerbate existing regional and urban–rural inequalities in post-disaster resilience.

**Figure 10. Percentage of households receiving assistance or support for earthquake recovery**



Source: Authors' calculations based on MHWS round 9.

### Earthquake Impacts on Welfare

Before the earthquake, households living in areas that would later be affected were consistently less vulnerable than the national average (Table 2). They had more income sources, were less likely to report job loss, faced fewer food price pressures, and had higher food consumption scores. While livestock ownership was slightly lower, overall economic and food security conditions were stronger than elsewhere in the country.

Looking at Myanmar as a whole after the earthquake, national conditions were broadly stable. Income diversification improved slightly, reports of job loss did not change, and fewer households reported facing high food prices. Asset and livestock ownership declined modestly, while food consumption levels remained largely unchanged.

Households in earthquake-affected areas did not follow these national patterns. Instead of improving, the number of income sources declined. A higher share of households reported job loss, and asset and livestock ownership fell more sharply than elsewhere. While food price pressures eased nationally, more households in earthquake-affected areas reported facing high food prices. Finally, although food consumption did not change at the national level, households in affected areas experienced a relative decline, leaving them worse off than they would have been without the earthquake.

In simple terms, while conditions across the country were mostly stable, the earthquake pushed affected households in the opposite direction—reducing livelihoods, eroding assets, increasing price pressures, and weakening food consumption outcomes.

**Table 2. Welfare indicators for earthquake affected areas, compared to before the earthquake and the national average**

Indicator	Before the earthquake (affected areas vs national average)	National pattern after the earthquake (Round 9 vs Round 8)	What happened in earthquake-affected areas
Number of income sources	More income sources	Small improvement	Fewer income sources
Job loss	Less likely to report job loss	No meaningful change	Higher share reporting job loss
Asset ownership (non-livestock)	Higher asset ownership	Small decline	Larger decline
Livestock ownership	Slightly lower	Small decline	Larger decline
Food prices	Less likely to report high prices	Fewer households reporting high prices	More households reporting high prices
Food consumption	Higher food consumption	No meaningful change	Relative decline

Source: Authors' calculations based on MHWS round 9 (for detailed calculations, see Tables A.2 and A.3).

## Conclusion

The analysis highlights that the March earthquake generated deep and uneven impacts across Myanmar, with the most severe consequences concentrated in high seismic magnitude areas but extending beyond them. Households in Nay Pyi Taw and Mandalay consistently experienced the greatest losses, including housing damage, asset destruction, and persistent disruptions to basic services such as electricity, water, transport, food access, and health care. Urban households were particularly affected, reflecting their greater reliance on wage and salaried employment and higher exposure to infrastructure damage. These patterns underscore that the earthquake was not a short-lived shock but a multidimensional crisis with lasting effects on living conditions and economic security.

Crucially, disruptions to livelihoods—especially wage and salaried work—emerged as a central constraint to recovery, limiting households' ability to rebuild and cope with ongoing service access issues. Despite the scale and persistence of these impacts, only a relatively small share of affected households reported receiving assistance, and even fewer continue to receive support, with notable regional disparities in coverage. Taken together, these findings point to a recovery process that remains incomplete and uneven, where unresolved income losses and service disruptions risk prolonging vulnerability unless sustained and targeted recovery investments are maintained.

## References

- UNHCR (2025a). Myanmar Earthquake: One-Month Impact Report, March – April 2025.  
<https://www.unhcr.org/media/myanmar-earthquake-one-month-impact-report>
- UNHCR (2025b). Myanmar Earthquake: Six-Month Impact Report, March – September 2025.  
<https://www.unhcr.org/media/myanmar-earthquake-six-month-impact-report-march-september-2025>

## Appendix

**Table A 1. Townships that experienced seismic magnitude of 7 or greater**

#	State	Township	#	State	Township
1	Bago	Taungoo	38	Nay Pyi Taw	Lewe
2	Bago	Yedashe	39	Nay Pyi Taw	Oke Ta Ra Thi Ri
3	Bago	Kyaukkyi	40	Sagaing	Sagaing
4	Bago	Phyu	41	Sagaing	Shwebo
5	Bago	Oktwin	42	Sagaing	Khin-U
6	Bago	Htantabin	43	Sagaing	Wetlet
7	Kayin	Thandaunggyi	44	Sagaing	Kanbalu
8	Mandalay	Aungmyaythazan	45	Shan	Ywangan
9	Mandalay	Chanayethazan	46	Shan	Pinlaung
10	Mandalay	Mahaaungmyay	47	Shan	Pekon
11	Mandalay	Chanmyathazi	48	Shan	Nawngkhio
12	Mandalay	Pyigyitagon	49	Shan	Mongmit
13	Mandalay	Amarapura	50	Shan	Mabein
14	Mandalay	Patheingyi			
15	Mandalay	Pyinoolwin			
16	Mandalay	Madaya			
17	Mandalay	Singu			
18	Mandalay	Mogoke			
19	Mandalay	Thabeikkyin			
20	Mandalay	Kyaukse			
21	Mandalay	Sintgaing			
22	Mandalay	Myittha			
23	Mandalay	Tada-U			
24	Mandalay	Natogyi			
25	Mandalay	Ngazun			
26	Mandalay	Yamethin			
27	Mandalay	Pyawbwe			
28	Mandalay	Meiktila			
29	Mandalay	Mahlaing			
30	Mandalay	Thazi			
31	Mandalay	Wundwin			
32	Nay Pyi Taw	Zay Yar Thi Ri			
33	Nay Pyi Taw	Za Bu Thi Ri			
34	Nay Pyi Taw	Tatkon			
35	Nay Pyi Taw	Det Khi Na Thi Ri			
36	Nay Pyi Taw	Poke Ba Thi Ri			
37	Nay Pyi Taw	Pyinmana			

Source: Authors' calculations based on MHWS round 9.

**Table A 2. Difference-in-differences estimates of the impact of the earthquake on employment, assets, and food consumption**

	Number of employment sources	Ownership of key assets	Food consumption score
National average	1.49	4.92	54.85
<b>Regression estimates</b>			
Effect of being in earthquake affected area after earthquake (Interaction)	-0.07	-0.15	-1.07
Effect of being in earthquake affected area (Treatment)	0.05	0.48	2.86
Difference between before and after earthquake (Round 9)	0.07	-0.05	-1.23

Source: Authors' calculations based on MHWS round 9.

**Table A 3. Difference-in-differences estimates of the impact of the earthquake on livestock ownership, employment, and food prices**

	Owns livestock	Lost employment	Higher food prices
National average	32%	22%	37%
<b>Regression estimates</b>			
Effect of being in earthquake affected area after earthquake (Interaction)	-2%	3%	3%
Effect of being in earthquake affected area (Treatment)	-2%	-3%	-2%
Difference between before and after earthquake (Round 9)	-3%	0%	-2%

Source: Authors' calculations based on MHWS round 9.

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## ABOUT THE AUTHORS

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