

behavior and background for evacuation from tsunami during the 2024 Noto Peninsula earthquake: A case study of the coastal area of Toyama City

*Shiori TAJIKA¹, Tatsuto AOKI¹

1. School of Regional Development Studies

This study focused on people's evacuation behavior in the event of a tsunami following the 2024 Noto Peninsula earthquake, attempting to elucidate evacuation behavior and the underlying factors behind it. The study focused on the coastal areas of Toyama City (Higashiiwase, Takabatake, and Nagai), where large-scale traffic congestion occurred during the Noto Peninsula earthquake. In addition to conducting a questionnaire survey of residents, interviews were also conducted with the Toyama City Crisis Management Division and the Toyama City Disaster Prevention Specialists Association.

The results of this study suggest that evacuation decisions are formed by a combination of factors, not only information such as shaking and earthquake early warnings, but also the behavior of surrounding people, external information such as news reports, memories of past disasters, and awareness of disaster risks in the residential area. This suggests that even with the same decision-making factors, there may be differences in whether or not people evacuate. Furthermore, it was confirmed that discrepancies between expected tsunami inundation and evacuation zones and actual evacuation behavior, including outside of these zones, could lead to secondary damage such as traffic congestion and confusion at evacuation shelters.

Based on the above, we pointed out that in order to bridge the awareness gap between the government, related organizations, and residents, it is necessary to formulate and share guidelines on evacuation behavior during normal times, expand the number of residents who are subject to disaster prevention awareness, and train leaders. Zoning actions according to differences in regional characteristics and regional disaster risks, such as priority evacuation or staying at home, and building a system for overall optimization will be essential for future disaster prevention city development.

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