

# Identifying community preparedness gaps for effective emergency planning

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## Developing and validating self-assessment scales for measuring community preparedness in response to flood and bushfire emergencies

Measuring community preparedness is essential before implementing strategies to enhance it. Understanding the existing level of preparedness and identifying weaknesses are key to developing a tailored plan that meets the community's specific needs (Fazeli et al., 2024).

### Introduction

Community preparedness is crucial for reducing the impact of disasters. As we know natural hazards escalating in recent years due to climate change and other factors, leading to substantial economic losses, environmental destruction, and human casualties. While we cannot prevent these events, we can learn from them. Training and education empower individuals to make informed decisions and respond effectively during natural hazards. This research aims to develop and validate self-assessment scales for measuring community preparedness in response to floods and bushfires, assisting people in understanding and mitigating risk.

### Methodology

To measure the current level of preparedness, surveys were designed as self-assessment tools covering various aspects, including knowledge, attitude, psychological preparedness, action preparedness, risk perception and willingness to drive in floods and bushfires. Extensive stakeholder engagement was conducted, and feedback from practitioners and emergency experts was incorporated into the survey design. The Data were collected from residents across all

states of Australia, and exploratory and confirmatory factor analyses were conducted to validate the scales and identify key factors influencing preparedness.

### Findings and discussion

Figure 1 illustrates the flood and bushfire preparedness scales. The flood preparedness scale (Figure 1, left) includes four factors: local risk awareness, self-efficacy, action plan, and vehicle safety. The bushfire preparedness scale (Figure 1, right) also comprises four factors: response efficacy, action plan, social support, and vehicle safety.

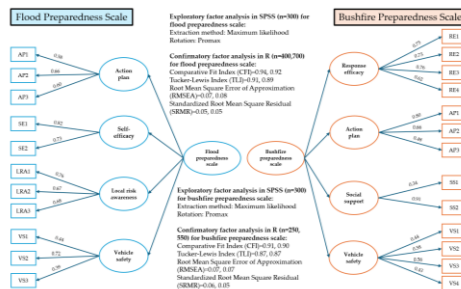


Figure 1: Flood and bushfire preparedness scales

Most participants consider themselves well-prepared regarding vehicle safety for flood emergencies. However, their main concerns

and weaknesses lie in local risk awareness, particularly in knowing the best shelters and routes in their neighbourhood to avoid floods.

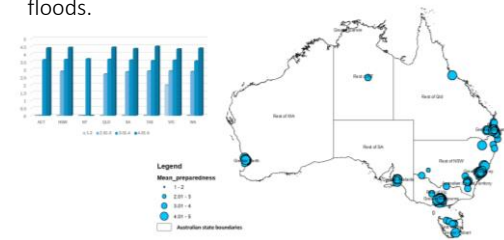


Figure 3: Flood preparedness levels of Australian residents

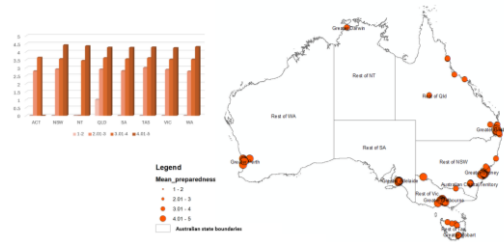


Figure 2: Bushfire preparedness levels of Australian residents

For bushfire preparedness, participants report feeling more confident in aspects related to social support. However, their perceived abilities are lowest in the action plan domain, which includes knowing the best shelters for bushfires, having emergency food and resources, and managing flammable materials around their properties.



### Further information

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