

UQ Fire Project #2020.05

RESILIENCE OF COMMUNITIES EXPOSED TO FIRE

Advisory Team

Dr David Lange (d.lange@uq.edu.au)

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Background and motivation

Cutter et al. define community resilience as the ability of a social system to respond and recover from disasters, including possessing those inherent conditions that allow the community to absorb the impacts and cope with an event; as well as being a post-event, adaptive process that facilitates the ability of the social system to re-organize, change and learn in response to threat [1]. This definition is in line with a context rooted in disaster resilience, where the concept relates to the ability of communities to learn from and adapt to the changed realities that a disaster, such as fire, may cause [2].

In the field of community or societal resilience, the concept of coping capacity, adaptive capacity and transformative capacity are common denominators that are used to categorise capacities needed to achieve resilience [3]. Coping capacity refers to the ability to respond, absorb and recover from a disruptive event and is generally related to a time frame close to the event. Adaptive capacity includes the ability to plan for and adjust to future challenges, which is related to a longer time frame both before and after an event. Resilience is not only about quick recovery and adjusting to new circumstances; the aspect of transformation must also be taken into account. Transformative capacity refers to the ability to transform the stability landscape in order to create new, better, pathways for the system and is thus related to major changes in the long-term.

The aim of this project is to explore the factors that contribute to community resilience from fires.

Research objectives

- 1) Identify and define resilience for a community exposed to fire.
- 2) Carry out a survey of incidents and identify factors that have contributed to the different capacities identified above.
- 3) Develop a nascent framework for the analysis of community resilience when exposed to fire

Methodology

This project relies on desktop studies and analysis of past incidents. As such there is no practical work planned for the project. The researcher will need to be able to gather, synthesise and to critically analyse information from literature.

This project would suit an 8 unit thesis.

Recommended literature

- [1] Cutter, S.L., et al., A place-based model for understanding community resilience to natural disasters. *Global Environmental Change*, 2008. 18(4): p. 598-606.
- [2] 34. Dufty, N., Engagement or education? *AUSTRALIAN JOURNAL OF EMERGENCY MANAGEMENT*, 2011. 26(3).
- [3] Keck, M. and P. Sakdapolrak, What is social resilience? Lessons learned and ways forward. *Erdkunde*, 2013. 67: p. 5-19.