The missing link in emergency management: measuring community engagement effects

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Being ready for a natural hazard has an effect on our community's **social** **and** **economic** **bottomline.***

Community engagement is our key tool for preparedness
...so why is measurement and evaluation not systematic?

* Gibbs, Sia, Block, Baker, Nelsson, Gilbert & MacDougall (2015)

Thanks to these agencies who supported the research:

- The Bushfire and Natural Hazard CRC
- NSW SES
- IGEM Qld
- DFES WA
- QFES
- Cairns Regional Council, NQ
- Ipswich City Council, Qld
- Tablelands Regional Council (Atherton), NQ

The Australian Institute for Disaster Resilience defines community engagement (CE) as:

"the process of stakeholders working together to build resilience through collaborative action, shared capacity building and the development of strong relationships built on mutual trust and respect" (2018, p. 2).

CE facilitates community to agency relationships (Johnston, Lane, Devin, & Beatson, 2018), with a clear aim to build capacity in communities to contextualise and understand risk, and take appropriate action or motivation to prepare.

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Evaluation

Community engagement (CE) preparedness programs are generally measured in two ways: **counts of events or headcounts** reporting the number of people attending events or spoken to at events (see agency annual reports 2017-18) and also **gauging increases in preparedness levels of individuals**, specific communities and/or state populations (such as those undertaken by Elsworth, Gilbert, Stevens, Rowe, & Robinson, 2010; Rhodes, Gilbert, Nelsson, & Preece, 2011, and agencies themselves).

Tier	Sample Measurements of Engagement
1 - Low level • **Presence** • **Occurrence** • **Manifestation**	• Indicator of activity • Counts and amounts • Social media i.e.: likes, page visits, click through • Monitoring – social media and traditional • Reading/ viewing/visiting/impression/awareness
2 - Mid-level: • **Understanding** • **Connecting**	• Indicators of relationship qualities • Trust, reciprocity, credibility, legitimacy, openness, satisfaction, understanding • Interaction quality • Diffusion - patterns and networks • Dialogue • Indicators of engagement dimensions at individual level measuring affective/cognitive/ or behavioural outcome • Antecedent and outcome
3 - Higher level: • **Action** • **Impact**	• Indicators of social embeddedness • Of self and others • Social awareness and civic (greater good) indicators • Acknowledgement of other (diversity/empowerment) • Indicators of action, change and outcomes at social level • Engagement in ecological system • Recognition of diverse perspectives • Social capital • Agency and coordinated action

Tier 1 **engagement measures or outputs indicate** the lowest level of engagement. Output evaluation measures and reports on activities such as:

- Practitioner activity (the doing and creating)
- Counts and amounts
- Website likes and visits
- Social and media monitoring (Johnston & Taylor, 2018)

Examples found:

- Agency and local government annual reports
- Dufty's (2008) evaluation of SES FloodSmart and StormSmart programs

Tier 2 **outcome indicators** suggest higher level of attitudinal or behavioural results.

- Measurement will assess the types of connections and relationships.
- CE seeks
  - Change in knowledge of risk
  - Increased efficacy
  - Behavioural changes such as families and communities creating and practising disaster plans

Foster (2013) demonstrated Tier 2 measurement and evaluation in a study on agency home visits, as did Every et al (2015) in their work on the South Australian Community Fire Safe program.

Tier 3 **engagement measures** see changes at the **social level of analysis**. They measure creation of resilience to diverse emergencies.
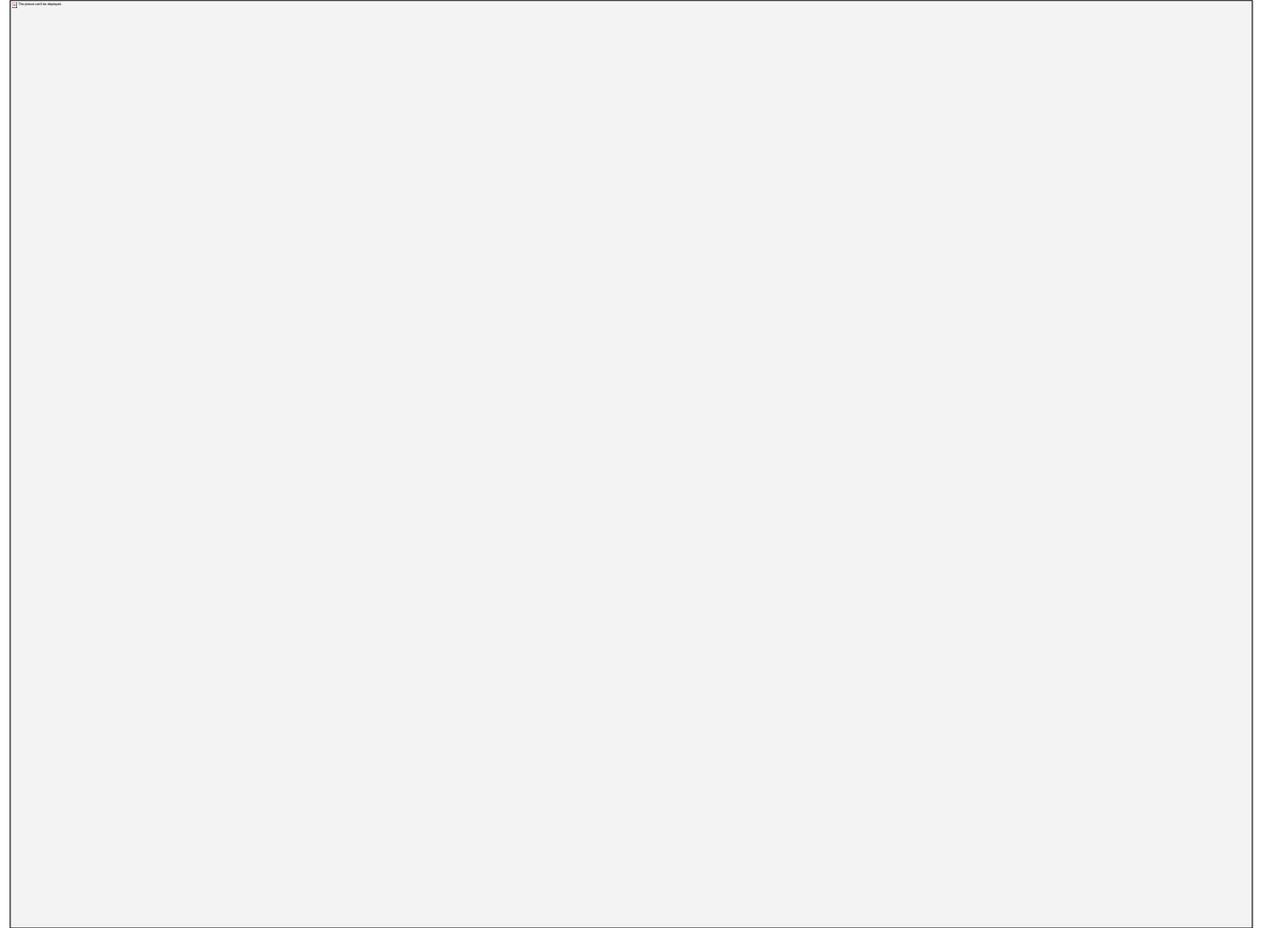
- Participation in community-based programs
- Social change and action
- Economic effect

Gibbs et al (2015) showed that impact of the CFA's Community Fire Guard program prevented property loss worth $732,747 and a reduction in fatality worth $1.4 million per group every 10 years.

"Even if the risk of major bushfire event in a region were one in 100 years, the estimated cost savings in a 100-year period is $217,116 per group" (p.375).
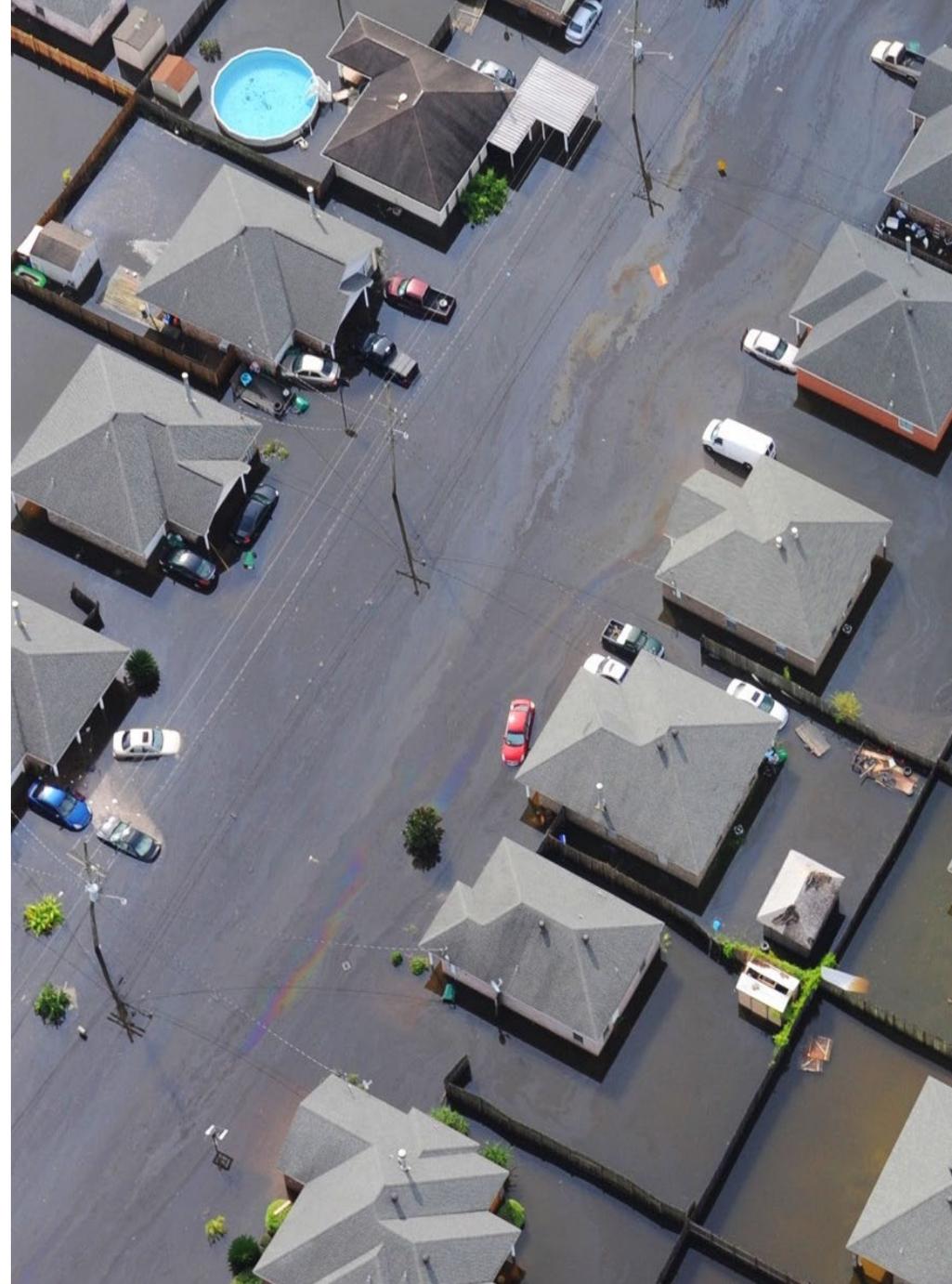
How do agencies measure engagement?

Method

- Qualitative research design

- 30 semi-structured interviews with community engagement practitioners from agencies, local councils and not-for-profit organisations around Australia.
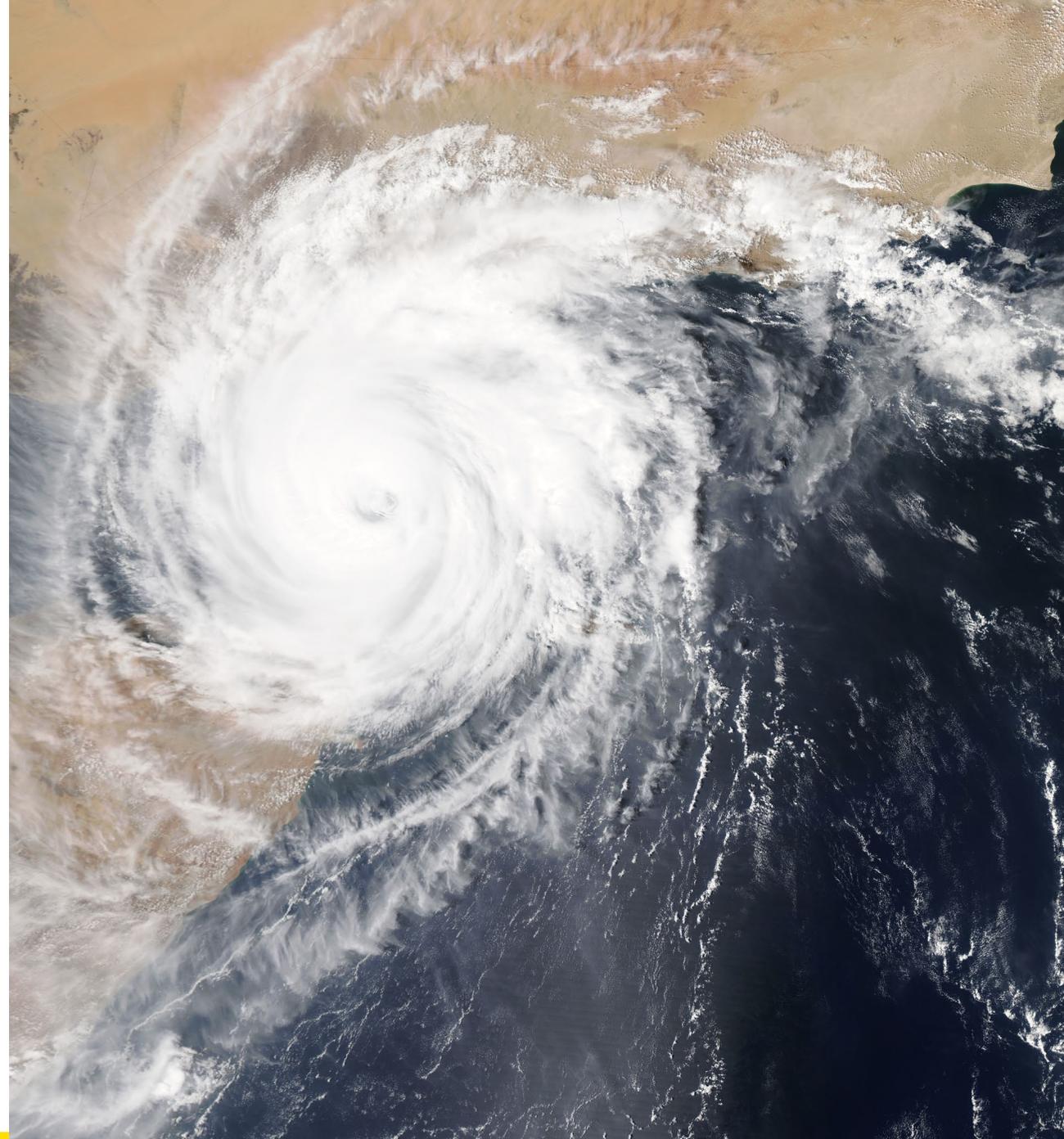
- Thematic analysis

State	Number
Qld	10
Vic	8
NSW	4
WA	3
Tas	2
SA	1
ACT	1
NT	1
Total	30

Agency	Number
EM agencies	25
LGA	3
Not-for-profit/others	2
Total	30

What we found

Finding 1: Varying evaluation processes

- Varying attitudes and approaches to evaluation
- Most engaged in some monitoring and evaluation
- Practitioners were positive about evaluation
- Recognised role and importance
- But also recognised that it is
  - Complex
  - Difficult/ under-resourced
- Only a (very) few agencies had formal, organised, scientific approaches to evaluation.

Finding 2: Evaluation capacity: Whose job is evaluation?

- Varying capacities within CE teams
- Some agencies developing/developed evaluation framework.
- For others, evaluation a new aspect to job
- For some, previous attempts had not worked well
- A few pointed to specialist roles in CE evaluation, but tied to a person, not a role

Finding 3: **Need for flexible, scalable evaluation tools and toolkits**

- All participants reported that they wanted to improve their evaluation capacity—even those working in organisations with highly skilled evaluation experts.
- They articulated a need for flexible, scalable tools and toolkits to make evaluation meaningful and useful.

What does this mean?

What does this mean?

- Practitioners can use CE to quantify levels of preparedness. We can measure how preparedness has an impact on operations during the response phase and the economic effect of better preparedness.
- Second, CE can also provide impact on operations by fostering better preparedness in response activities.
- Finally, CE can provide economic and social impacts through measuring lives and property saved.

How do agencies get there?

How can we get there?

In the interviews, community engagement practitioners wanted a **clearer link** between the **strategic plan** of the agency and **its monitoring and evaluation** of program outcomes.

Three ways to do this:
- Creating a culture of evaluation in CE
- Clearer strategic planning of the community engagement function
- Formal involvement/championing of CE in the strategic planning process

How can we get there?

Create a cross-organisation culture of CE and its measurement and evaluation

…and discover and communicate its impact on operations.

How can we get there?

Establish a baseline

Good program evaluation begins with baselines of data collected before or at the start of a project.
Baselines:
- Provide a basis for planning and/or assessing subsequent progress and impact.
- Can describe the existing level of community preparedness in both quantitative and qualitative terms.

How can we get there?

Set preparedness goals that reflect social and economic impact rather than levels of preparedness.

We need to take the next step, just as we **moved** from **counting heads** to measuring **levels of preparedness.**

How can we get there?

We need to be more **committed** to SMART-type objectives (Specific, Measurable, Achievable, Relevant and Time bound).

We need to become **discerning** about these objectives:
- What has meaning (behavioural change)?
- What is just there for the annual report (headcounts).

Roadmaps for measurement and evaluation

Several…

The AIDR Knowledge Hub already hosts : *A Monitoring and Evaluation Framework for Disaster Recovery Programs* (2018)

And the BNHCRC will post our research mapping approaches to community engagement for preparedness, including M&E, at the end of September.

The bottomline of this research?

…is the agency bottomline - **mitigating** social and economic effects of natural hazards.

Community engagement and its **measurement** and **evaluation** is **the** critical component of this journey

The report from this research…

…will be available on the BNHCRC website from October.

Economic impact reference:

Gibbs, L., Sia, K. L., Block, K., Baker, E., Nelsson, C., Gilbert, J., & MacDougall, C. (2015). Cost and outcomes associated with participating in the **Community Fireguard Program**: Experiences from the Black Saturday bushfires in Victoria, Australia. *International Journal of Disaster Risk Reduction*, *13*, 375–380.