Engaged and Resilient Communities: AEMI Workshop 17-19 May 2011

By Alison Cottrell.

Dr Alison Cottrell from the Centre for Disaster Studies at James Cook University in Queensland presents some of the key issues tackled at the Australian Emergency Management Institute's Engaged and Resilient Communities Workshop. This article is the first and overarching summary, of a series of articles that will appear in future editions of the Australian Journal of Emergency Management. These articles will be identified by the origami logo that appears here.

At the outset of the workshop Dr Cottrell gave a presentation that framed participants' understanding of resilience, vulnerability, sustainability, indicators and engagement, and on the final day, she presented participants with considerations for measuring engagement and resilience success.

A full report of the workshop proceedings and the participants' conversations and responses to questions raised can be found at www.em.gov.au. (R)

The Australian Government recently released its policy on community resilience with a focus on shared responsibility with the broader community (COAG 2011).

This policy raises some questions about how resilience is defined, and how it might be measured in the disasters context. In addition, there is an assumption embedded in the notion of shared responsibility that communities (in the broadest sense) need to be engaged in processes that foster their own resilience. Then questions arise as to how communities become engaged, and how we might assess the appropriateness and strength of that engagement. The workshop set out to address these issues with cooperation between practitioners and researchers.

The context of the workshop was around notions of community engagement and resilience. After a short briefing on the COAG community resilience policy, discussion moved on to resilience and indicators.

Vulnerability, resilience and sustainability

Resilience and related concepts are conceptualised in a number of different ways according to the different disciplines, problem contexts, scale, and objectives. For example, resilience has been defined as: resisting change (Holling,1973; Miletti, 1999; Timmerman, 1981) or bouncing back (Walker *et. al.*, 2004), or transforming (Kirmayer et al 2009; Opstal, 2007; Paton and Johnston, 2006) in response to environmental or social perturbations, or even a combination of these (Kirmayer *et. al.*, 2009; UN/ISDR, 2002). Consistent with the view that resilience is transformative and/or adaptive, resilience then is also viewed as a process, not an end state (Kirmayer *et. al.* 2009, Norris 2008).

Resilience is also intimately related to vulnerability, but rather than being seen as opposite ends of a spectrum, can be envisaged as parallel sets of indicators. Whereas vulnerability measures susceptibility, resilience draws on the strengths and capacity of people and communities. People can be both vulnerable and resilient at the same time (Buckle, 2006; Paton, 2008; Paton *et. al.*, 2001; Tobin and Whiteford, 2002). A fuller understanding of capacity for adaptation, however, requires recognition of the multiple scales at which vulnerability, resilience and adaptation might occur (Paton and Gow, 2008).

The (heuristic) scales at which adaptation appear include the individual/psychological (Barton, 2005; Kirmayer et al, 2009; Linley and Joseph, 2004), organization/institutions (Dalziell and McManus, 2004; Gibson and Tarrant, 2010; Seville et al, 2006 and 2009; Stephenson *et. al.* (2010a and 2010b), community/social (ADPC, 2004; AHPRC, 1999; Handmer and Dovers, 2007; Miletti, 1999; Paton and Gow, 2008) and social/ecological Abel, 1999; Adger, 2000; Adger, 2003; Geis, 2000; Gunderson and Holling, 2000; Klein *et. al.*, 2003; Powell, 1999). Accordingly, different measures or different forms of the same measures may apply at the different scales.

Indicators of community/social vulnerability and resilience to hazards

As the topic of interest is resilience of communities to hazards and disasters, it needs to be defined precisely to determine how the indicator is developed. It is this construct and the definition of what contributes to resilience that drives the selection of some characteristics as indicators. The characteristic will usually have to be standardised to make it usable as an indicator.

There are diverse approaches to the development of indicators. For some, indicators are essentially quantitative comparable statistics. For others, indicators are qualitative subjective measures for moving community planning forward. Yet others see a combination of approaches as preferable. Flint and Luloff (2005) suggest a mixed methods approach to investigating vulnerability, resilience and adaptive capacity. Powell (1999) and Klein *et. al.* (2003) also view qualitative methods in a favourable light. Importantly, Powell (1999) and AHPRC (1999) suggest that qualitative methods at the local community level are what will develop more relevant understandings of change in a given context.

Indicators are not ends in themselves, but are tools that can be used to define or point to a more significant issue. The use of indicators must begin with the model or construct that is to be examined (King 2001, King and McGregor 2000).

A review of social indicators by Fenton and MacGregor (1999) showed five classes of indicators of relevance to planning and decision making:-

- *Informative indicators* (indicators used to describe the social system and the changes taking place);
- *Predictive indicators* (these indicators are informative and fit into explicit formal models of subsystems of the social system);
- *Problem-oriented indicators* (these are indicators which point particularly toward policy situations and actions on specific social problems);
- *Program evaluation indicators* (indicators used to monitor the progress and effectiveness of particular policies); and
- *Target delineation indicators* (variables describing the demographic, environmental, pathological or service provision characteristics which are useful in identifying geographical areas or population subgroups towards which policy is directed).

Indicators of resilience may fall into all of these classes, but at each level they may be used for a different purpose. Lists of vulnerability and resilience indicators (Myers et al. 2008, Kirmayer et al. 2009, Cutter *et. al.* 2003, Cutter et. al 2008, Cutter et. al 2010) may contribute to the delineation of target groups. In confronting concepts such as climate change adaptation, the indicators need to be the type that may predict future behaviour, responses and actions. Climate change is also a specific problem that requires a policy response and indicators derived from variables that point towards adaptation and change. Evaluation indicators are especially useful in disaster/event recovery phases, or longitudinal adaptive processes. Thus they must be capable of measuring change between time periods and communities, at different scales and different levels.

There are many models of resilience because the concept is context-dependent. Different models identify processes, relationships and capacities (Anderson-Berry & King 2005, Eakin and Wehbe 2009, Pearce 2005, Zhou et al. 2010). Each approach to indicators of vulnerability and resilience defines a problem or a theory or a construct about some aspect of the vulnerability/resilience concept. The approach taken then selects characteristics or variables that provide a pointer or an indicator to that issue, within the levels of scale, type and category being considered. Indicators of vulnerability to hazards and disasters are based on a construct of incapacity, while indicators

Discussions on community engagement.

Presenter Name	Topic	Organisation
Martin Anderson	Community-led response	Digital Media Manager, Country Fire Authority, Vic
Steve Broome	Social Networks, behaviour and well being	Director of Research, the Royal Society of the Arts, London
Dr Jim Cavaye	Engagement: experience, ideas and practical realities	Director of Cavaye Community Development, Queensland
Dr Alison Cottrell	Communities, resilience and engagement. Measuring and evaluating engagement success	Centre for Disaster Studies, School of Earth and Environmental Sciences, James Cook University, Queensland,
Carmel Daveson	Engagement in other sectors: Translating micro concerns into macro policy	Citizen, Regional Queensland
Vivienne Gardiner	Community-led preparation and mitigation	Community Safety, Fire and Emergency Services Authority, Western Australia.
Carmel Guerra	Diversity	Centre for Multicultural Youth, Melbourne
Malcolm Hackett	Community-led engagement	Chair of the Strathewen Community Renewal Association
Dare Kavanagh	Community engagement in other sectors: housing sector	Housing NSW
Anne Leadbeater	Why it matters: a context for engagement and resilience	Office of the Emergency Services Commissioner, Victoria
Tom Lowe	The role of emergency management services in helping communities adapt to change	Department of Sustainability and the Environment, Victoria
Sally McKay	Community-led recovery	National Consultant, Disaster Recovery
Stephani Roy McCallum	Unchartered Territory: building community ownership and resilience in times of crisis	Dialogue Partners, Canada
Jennie Schoof	Diversity	Volunteers Queensland
Sue West	Using community indicators	Community Indicators Victoria
Michael Tudball	Community Engagement in other sectors: Engaging community in new housing developments	Department of Planning and Community Development, Victoria

of resilience are based on a construct of capacity and societal strengths. To develop combined concepts that allow a broader concept of resilience to be explored, such indicators require datasets that provide a wide range of societal characteristics. Cutter et al. (2010) have combined a number of indicators to develop both resilience and vulnerability indices. The resilience indices are at a national scale for the USA and deliberately avoid including environmental components. Indices at this broad scale may have utility for policy and planning at the state or national level. The Victorian Community Indicators Project (West 2009) provides an Australian perspective on the use of indicators at the state level.

Resilience was explored at the workshop through a number of themes at the community level: resilience policy and the political imperative; understanding and communicating risk; cumulative and compound events; and resilience within agencies. The overall view was that what resilience looks like differs between communities. For the development of adaptive capacity and resilience at the local level, as outlined before, the neglect of environmental factors and local perspectives is problematic. This is where community engagement figures strongly, because it is through engagement with communities that we come to know and understand how that community functions, and how resilience presents in that community.

Community engagement

Discussions on community engagement were focused around: why engagement matters; diversity issues; social networks and their role in behaviour and well being (Cottrell 2007, Rawson et al 2010); community led recovery at the three phases of preparation and mitigation, response, and recovery; engagement in other sectors; engagement techniques; the role of

emergency services; and measuring and evaluating engagement success. Two aspects of community engagement were identified. There is engagement between communities and organizations that service their needs. Guidelines for these processes exist (DSE 2011, Queensland Government 2011). There is also engagement within communities. Too often, the engagement within communities that is either manifest or latent is overlooked by agencies. An outcome of the workshop was the rich discussions about the diversity of community engagement processes, both within communities and between communities and agencies. In addition, there were discussions about the many methods for assessing community engagement. In particular, it was concluded that measures of community engagement need to be constructed with the participation of communities themselves in order for those measures to be relevant. A requirement of all methods is that who and what constitutes a particular community is well understood before community engagement can be deemed appropriate or otherwise.

The mix of the group participating in the workshop brought together disaster and emergency management professionals as well as community development and community engagement professionals and researchers. The isolation of emergency management from broader community engagement and community development activities was identified as a major issue that needs to be addressed. The final session of the workshop combined the two issues of resilience and engagement by addressing the difficult task of building community ownership and resilience in times of crisis.

The implications for emergency management practice are that community engagement is core business, it requires valued partnership relationships that are developed over time and prior to an event, a whole of community approach is required to foster adaptive, informed communities.

A fuller discussion on resilience in the context of climate change can be found in:

Cottrell, A., King, D., and Dale, A. 2011. Planning for Uncertainty: Disasters Social Resilience and Climate Change. Paper Presented in Track 20 (Climate Change, Risk, Adaptation and Planning) at the 3rd World Planning Schools Congress, Perth (WA), 4-8 July 2011.

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