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Innovative Techniques for Local Community Engagement on Climate Change Adaptation

CHRIS RIEDY, JADE HERRIMAN, KATIE ROSS, ALETA LEDERWASCH and LOUISE BORONYAK

Abstract: Climate change adaptation requires communities to prepare for both extreme weather events and the more gradual shifts that a changing climate may bring. Our project designed and evaluated several face-to-face activities to engage communities in North East Victoria on climate change adaptation. The objective was ultimately to help vulnerable people in the community become more resilient by connecting them with resources and supportive networks. The workshops tested several innovative community engagement activities, including storytelling, visioning and creative practice. These activities responded to a body of research on best-practice approaches for engaging community elders and leaders as spokespeople and peer educators, as well as research on deliberation and the use of story to locate sustainability experiences in an emotional landscape. The workshops used existing community networks to multiply their potential impact, and took place in communities that had experienced extreme climate events (drought, fire and flood) firsthand. We present a toolkit of ten community engagement activities drawing on the experience of these workshops. We contend that these activities are potentially replicable by local governments and other stakeholders in climate change adaptation. Further, they can bring to life the many and varied materials created by various agencies about preparation for climate change.

Keywords: Climate change adaptation, community engagement, local government, storytelling, visioning, creative practice.

1. Introduction

Australian communities are uniquely vulnerable to climate change. Our dry continent already experiences high natural climate variability. Droughts, bushfires and flooding rains are part of the Australian experience, but all may increase as the climate changes (Climate Commission 2011). Despite international action to reduce greenhouse gas emissions, some climate change is now inevitable (Climate Commission 2011) and communities need to plan ahead to adapt to these changes. Climate change adaptation requires communities to prepare for both extreme weather events and the more gradual shifts that a changing climate may bring. Adaptation is particularly important in regional Australia, where exposure to climate-related events such as drought, bushfire and flooding is often higher. In response, Australian regional communities have taken diverse actions to adapt to climate change (Martin et al. 2009).
Although climate change is a global challenge, the impacts of climate change manifest at a local or regional scale. Local communities and local governments are best equipped to anticipate the changes that are most important in their context and to develop appropriate responses. Consequently, local governments are at the forefront of climate change adaptation (Mukheibir et al. 2013). This is a challenging role for local governments that requires them to engage with their communities in sophisticated ways.

Political contestation over climate change responses increases the challenge. Responses to climate change can be controversial. A large proportion of the community does not believe that climate change is happening (Leviston et al. 2011), making them likely to resist efforts to adapt to climate change. Others may believe in climate change but question the need to respond urgently, or resist specific forms of adaptation. For example, changes in local planning instruments to respond to rising sea levels may threaten property values and prompt community resistance. The existing controversy and conflict in relation to climate change makes community engagement in climate change adaptation planning and decision-making of critical importance. Genuine community participation in climate change adaptation processes has the potential to reduce conflict and generate community ownership of adaptation actions. It can contribute towards building a community consensus on the seriousness of climate change and the need to act (Mukheibir et al. 2013). However, realizing this potential in practice can be challenging.

This paper reports on a case study of engaging a regional Australian community in climate change response on behalf of the North East Greenhouse Alliance (NEGHA), a coalition of six local governments in North East Victoria (Alpine Shire, Benalla Rural City, Indigo Shire, Towong Shire, Rural City of Wangaratta and Wodonga City). NEGHA commissioned the authors to develop a program to engage communities in North East Victoria in climate change adaptation. NEGHA received funding under the Australian Government’s Strengthening Basin Communities program to develop a Regional Climate Change Adaptation Strategy. They were looking for community input to the Strategy, as well as advice on suitable engagement techniques to use with local communities during implementation of the Strategy.

Our team designed, implemented and evaluated three face-to-face activities to engage communities in North East Victoria that are potentially vulnerable to climate change: ‘Brains Trust’ workshops with community elders (see Section 3); capacity building workshops with grassroots community leaders (see Section 4); and mobile outreach activities (see Section 5). The objective was ultimately to help vulnerable people in the community to become more resilient by connecting them with resources and supportive networks. The workshops tested several innovative community engagement activities, including storytelling, visioning and creative practice. These activities responded to a body of research on best-practice approaches for engaging community elders and leaders as spokespersons and peer educators, as well as research on deliberation and the use of story to locate sustainability experiences in an emotional landscape.

In this paper, we describe the research justification for the three engagement activities (Figure 1) and draw out lessons for local government and community practitioners. The end result is a toolbox of practical, research-grounded community engagement activities that local governments can apply with communities in different contexts to genuinely engage people with diverse views on climate change.
2. **Principles for community engagement on climate change adaptation**

The starting point for design of our community engagement activities was a review of the literature on best practice in community engagement for climate change adaptation in the Victorian context (e.g. Arold and Kinrade, 2012, CRED 2009, Folke 2006, Fünfgeld and McEvoy 2011, Futerra 2009, Gardner *et al.* 2009, Productivity Commission 2012, Shove *et al.* 2012, Wiseman *et al.* 2011a, 2011b). We synthesized this literature into the following ten general principles for community engagement on climate change adaptation:

- Embed activities to raise awareness of climate change in all community engagement activities
- Adopt a positive, inspiring and fun approach to reduce fearful reactions to climate change, as these work against taking action
- Build the resilience and capacity of the community to adapt to long-term climate trends and unpredictable climate shocks, such as fires, floods and heatwaves
- Ensure that what we ask of participants is practical in the context of the everyday practices in which they engage
- Help communities to understand the issues affecting them and support communities to design and lead their own solutions
- Ensure that a range of activities are available that can be adapted to different contexts
- Be responsive to local context and draw out actions from the community that are appropriate and sensitive to the local landscape
- Use diverse engagement techniques to cater for differing learning styles and preferences
- Ensure that all activities are piloted and evaluated

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**Figure 1:** The three pilot projects and their locations.
• Aim for lasting engagement with communities rather than one-off activities.

The principles were used both to assist in the selection of community engagement activities to test in pilot projects and to guide the design of the activities. The three principles marked with an asterix (*) primarily informed the choice of pilot projects and the overall project design. The choice of pilot projects also took into account: degree of vulnerability; a preference to work with people not already targeted by existing programs; community receptiveness; scalability; representativeness; feasibility; and geographic coverage.

The ways in which the principles informed the design of specific community engagement activities are outlined in more detail in later sections of the paper. Here, we draw attention to a few key points related to the principles.

First, we want to highlight the emphasis on framing climate change adaptation as being about building resilience rather than reducing vulnerability. This positive focus creates a greater sense of personal and community agency. It also opens up discussion of actions that can increase the general resilience and strength of communities that may not seem specifically linked to climate change. This can be important for engaging members of the community that have doubts about the reality and seriousness of climate change.

Second, it is important to note that all communities are different and there is no single community change program that will work everywhere, in all situations (Pawson and Tilley 1997). Contexts and issues can change rapidly, meaning that community engagement programs also need to respond and adapt. This is one of the reasons why we developed a ‘toolbox’ of ten possible community engagement activities that could be applied in different situations (see Conclusion). This allows Councils to pick and choose activities that are likely to suit their particular context and application.

Finally, given the importance of local context in climate change adaptation, it is not possible to be certain in advance that a particular engagement activity will work in a particular community. Testing and evaluation is a critical element in the design of community engagement programs. This is one of the reasons why we piloted three quite different community engagement activities as part of our work in North East Victoria.

3. Engaging community elders

Like many parts of Australia, North East Victoria has an ageing population. Earlier work for NEGHA (Arold and Kinrade 2012) identified older people as particularly vulnerable to climate change and a critical audience for community engagement on climate change adaptation. Rather than labelling older people as vulnerable, our philosophy was to recognize that older people are the ‘wise elders’ of the community and their knowledge should be respected and drawn upon. Many know their community very well and have experienced and survived climate-related emergencies. Seniors can be empowered to act as a ‘brains trust’ (Robinson 2013), offering a source of wisdom and local knowledge to help plan for climate resilience. As such, we ran two North East Brains Trust Workshops with seniors and people who work with seniors in Wodonga and Tallangatta.
The objectives of the workshops were to:

- Motivate action by building awareness and knowledge of climate change impacts
- Enable action by building awareness and knowledge of existing resources, such as available emergency services and tapping into established local community groups
- Inspire action through a positive framing of issues and focusing on the strengths of older people in the community and the wider local community
- Empower older people by using their existing knowledge, ideas and networks to design tools that will help both themselves and their communities to adapt and build resilience to climate change.

3.1 Theoretical framework

The best-practice principles identified in Section 2 informed this pilot in several ways. First, drawing on the principle of positive engagement, we noted that one of the best ways to overcome negative emotional responses to climate change is to ground programs in positive actions that participants can take to make a difference. The specific actions will depend on the communities involved but they should be tangible, practical and fun. This informed our choice of activities for inclusion in the workshops. Keeping a focus on positive actions, including actions that will have benefits regardless of how the climate changes, is one way to circumvent polarizing debates about climate science.

Secondly, we sought to raise awareness about climate change at the same time as engaging participants in practical actions. Gardner (et al. 2009) note that misinformation, uncertainty and skepticism are key barriers to successful climate change adaptation and that more accurate knowledge about climate change impacts is an essential step on the pathway to climate change adaptation.

Thirdly, this pilot embedded the principle of community-generated solutions. When solutions come from the community, they are much more likely to have a lasting impact (Robinson 2013). The role of community engagement programs is to facilitate this process, helping communities to understand the issues affecting them and to design and implement their own solutions. As noted by Gardner (et al. 2009), the ultimate goal is for vulnerable communities to take sustained action themselves.

Two existing programs also inspired our approach: ‘The Elders’ and the ‘Aged Friendly Cities Initiative’. The Elders is an independent group formed in 2007 by Nelson Mandela from the simple idea that many people look to their elders for guidance (for more see http://www.theelders.org/home). The initiative details criteria for what makes an ‘elder’, including that they bring with them a wealth of diverse expertise and experience and a commitment to creating change. Our workshops adopted this perspective.

The World Health Organization (WHO) developed the Age-Friendly Cities (AFC) project to engage cities worldwide in making their communities more age-friendly. In an age-friendly city (or community), policies, services, settings and structures support and enable people to age actively by:

- Recognizing the wide range of capacities and resources among older people
• Anticipating and responding flexibly to ageing-related needs and preferences
• Respecting their decisions and lifestyle choices
• Protecting those who are most vulnerable
• Promoting their inclusion in and contribution to all areas of community life
(World Health Organization 2007, p. 5).

On top of these initiatives, the activities of this pilot were informed by theory relating to engaging older people in climate change, and creative approaches for building resilient communities, explained below.

3.1.1 Engaging older people
The Stockholm Environment Institute (Haq et al. 2010) outlines the impacts of climate change on older people and suggests approaches for engaging older people in responses to climate change. Many of the suggestions are consistent with the best-practice principles already outlined in Section 2, including the use of positive messages. However the following additional points are worth noting as ingredients of our approach:

• Tailor your information to appeal to the interests and values of older people (for example values of thriftiness and intergenerational justice)
• Use trusted sources and communication methods to recruit and engage seniors, such as local radio, local newspapers and existing social networks
• Develop an inclusive dialogue that shows respect for the experiences and knowledge that seniors bring to the table (avoid treating seniors as incapable, passive or disinterested).

3.1.2 Creative approaches
Besides simply being fun, activities that tap into our creative selves warm us up to take on board new perspectives and information, stimulate fresh ideas, and evoke empathy (Lederwasch 2012, Zeki 2001). Creative exercises may be particularly useful when engaging with information and ideas that people may not have considered before, material touching on inter-generational matters, and for being motivated to help others. This pilot tested two creative approaches: story telling and the development of a visual resource (a resilience poster).

Real-life stories of change, preferably told by people we trust, are recognized as a key ingredient in achieving positive change (Robinson 2013). We used storytelling activities at the start of each workshop to draw out common experiences with climate variability and build trust between participants.

Visual material has also been found to be an effective tool for facilitating conversations. In a study that investigated the influence that art had on dialogue with elderly persons, in the context of nurse management, art was found to cause a significant improvement in dialogue (in terms of depth, length, direction and level of engagement in conversation) (Wikström 2000).

3.2 The pilot activities

This pilot ultimately focussed on increasing the preparedness of seniors for climate related emergencies (before, during and after the time of crisis). Importantly, the activities considered how the participants themselves might be a valuable source of support to their
families, friends, and particularly to vulnerable neighbours during times of crisis. We held one Brains Trust workshop in Wodonga and one in Tallangatta. The intent was to see if the approach worked in an urban community that was relatively well connected (Wodonga) and in a more isolated township (Tallangatta). This also enabled us to test different approaches for reaching people in these different circumstances.

The participating Councils helped us to identify community leaders and existing social networks to successfully reach our target audience (8–12 people at each workshop). We contacted potential participants by telephone, appreciating that some seniors may not have Internet access. According to social research in the area (GPS Research 2011), we anticipated considerable skepticism about climate change within our target audience. For this reason we avoided ‘climate change’ language and adopted language that focused on climate variability, risk and resilience, such as ‘preparing for extreme weather events’.

Each workshop went for three hours and included the following activities:

- A presentation on climate change in the region
- A story telling activity
- Development of a shared vision for a climate-resilient community
- Testing of an emergency planning resource developed for seniors by the Red Cross (Australian Red Cross 2009)
- Creating ‘resilience posters’ (a visual resource for use during emergencies).

The workshops began with a brief overview of historical and projected regional climate patterns. This introduced the workshop topic in a way that was real and relevant to the participants. We then moved into a story-telling exercise.

3.2.1 Storytelling
The participants were invited to share stories about what they were passionate about, what they loved about their community, challenges for their community and their experiences with extreme climate events. This approach was loosely modelled on Les Robinson’s suggestions on facilitating ‘action conversations’ (Robinson 2010). It sought to open the conversation with ‘heart’ and ‘head’ questions, before moving later in the workshop to practical ‘hands’ questions.

3.2.2 Visioning
In this activity, the participants collectively brainstormed a vision of what a resilient community looks like. The purpose was to generate thinking around resilience and to help participants grasp this concept. The activity also aimed to create an empowering, positive atmosphere and a ‘can do’ attitude. Significant effort was made to maintain this atmosphere throughout the whole workshop.

3.2.3 Red Cross Emergency RediPlan
In this activity, participants reviewed, discussed and evaluated an existing resource designed to assist seniors in preparing for bushfires, floods, heatwaves and other climate related emergencies—the Red Cross RediPlan (RediPlan): Household Preparedness for Seniors (Australian Red Cross 2009). The purpose was to familiarize participants with this resource and to generate ideas on how to make this sort of resource more engaging and useful for seniors in preparing for climate related emergencies. The RediPlan included worksheets to assist people in creating contact lists of people and services that they could seek help from in
the case of an emergency, as well as encouragement for planning to assist others in emergency situations.

3.2.4 Resilience poster
In this activity, we asked participants to design a ‘resilience poster’—a one-page poster with essential information for climate emergencies in a highly visual form. The design of this exercise was guided by the principles for engaging seniors outlined earlier, in particular appreciating the specific needs of this target audience. In an emergency, older people may struggle to rapidly locate information about what to do and who to contact. A highly visual poster in a suitable location could help to rapidly locate necessary information.

Like the RediPlan activity, designing a resilience poster required participants to reflect on local services and people that they could draw upon to support them in preparing for the impacts of climate change. The purpose of this activity was to test how useful such a poster would be for the target users and to generate ideas for what a useful and engaging resilience poster would look like. Examples of two resilience posters developed by participants are shown in Figure 2.

<table>
<thead>
<tr>
<th>Poster 1</th>
<th>Poster 2</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="image1.png" alt="Poster 1" /></td>
<td><img src="image2.png" alt="Poster 2" /></td>
</tr>
</tbody>
</table>

**Figure 2:** Resilience posters developed by Brains Trust participants.

*Poster 1* shows one participant’s ‘Safety Plan’, listing phone numbers for key contacts down the left side, people to check on down the right side, possible places to go and important things not to forget. *Poster 2* groups contacts to check on during an emergency in an expanding circle of care, starting with key emergency service contacts and then moving out to family, friends and neighbours.

3.3 Lessons

Based on survey results and facilitator observation notes, participants found the workshops useful and engaging. Les Robinson’s guidance on facilitating action conversations was
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particularly valuable for this pilot (Robinson 2010). We found that starting with personal stories (the ‘hook’), then moving through ‘heart’, ‘head’ and ‘hands’ questions was a very effective way to start the workshops and built the platform for great dialogue. The story telling exercise built trust amongst the group and illustrated, in a personal way through sharing direct experiences, potential climate change impacts.

Most participants acknowledged that going through the ‘RediPlan’ was very useful in raising awareness of risks and local information sources to draw upon to become better prepared. However, a common concern amongst participants was that they would not have time to ‘flick through’ a booklet of information during an emergency. This made the resilience poster activity a good and practical activity to follow. Most agreed that this one-page resource would be useful in an emergency situation. Drawing heavily on local resources and grounding the workshop in the local context helped to ensure that each activity had relevance, was engaging and could lead to practical outcomes for the community. We believe that a key to the success of this pilot was the positive framing of all activities.

While all of the activities delivered positive outcomes some participants found them challenging. Some participants found it difficult to ‘imagine’ a resilient community. Others were not confident to participate in the ‘design’ of a resilience poster. Fortunately we had three facilitators at each workshop and so were able to provide one-on-one support or encouragement with participants who needed it. Having greater resources for participants to draw upon during the resilience poster activity would have been useful, for example a list of relevant local emergency service providers and their contact details. Additionally, while we gave careful consideration to how we defined ‘older people’ we hadn’t anticipated the significance of the range of capacities and interests amongst the participants. While some may still be working and fit, others may require assistance with reading and interpreting information, and may require physical assistance in getting to a workshop.

Overall, the outcomes of the activities demonstrated that older people know their communities well and are well placed to advise on effective community engagement techniques. We believe that the concept of a Brains Trust Workshop could be used elsewhere to test other community engagement activities. However, it is important to appreciate that workshops like the Brains Trust Workshop, that are mainly focused on consultation, run the risk of leaving participants with the feeling that their concerns have not been addressed. It is important to get back in touch with participants to let them know how their input was used. Because the Brains Trust Workshop is about testing engagement activities and approaches, evaluation is critical. Facilitators need to take detailed observation notes and ask participants to fill out feedback forms to gather necessary data.

4. Grassroots community leadership

4.1 Theoretical framework

As described earlier, a key principle guiding pilot development was to support communities to design and lead their own solutions. In practice, this means that community engagement programs should provide facilitated processes that will help participants to build their awareness about climate change adaptation, understand possible responses and then design and implement their own responses. As noted by Gardner (et al. 2009), the ultimate goal is for vulnerable communities to take sustained action themselves.
This principle recognizes that all communities have strengths, skills and abilities and encourages us to build community capacity by ‘bring[ing] together and enhanc[ing] the existing skills and abilities of communities which are already on the ground’ (Atkinson and Willis 2006). Capacity building to support existing community leadership is something that some local governments provide by working with existing volunteers or groups to support and develop leadership skills, increasing the reach and effectiveness of community delivered programs and advocacy, thereby enhancing local sustainability responses. This pilot had community capacity building at its core and worked to identify existing grassroots initiatives that could take stronger action on climate change adaptation.

This pilot also sought to engage people via activities they are currently involved with, in line with the principle of only asking participants to take action that is practical in the context of the everyday practices in which they engage. A common failing of community engagement and behaviour change programs is to ask participants to take on behaviours that are not practical due to other constraints they face and to overlook the degree to which behaviours are shared (social) and routinized. Social practice theory argues that community engagement programs are more likely to succeed if they consciously seek to make materials, competences and meanings available to support new practices (Shove et al. 2012, p. 14). As such, we sought to work with people within their existing networks and meeting structures, and approached climate change adaptation through the familiar lens of sustainability that they were already working with. We also took a place-based community engagement approach, recognizing that local context is critical (Manzo 2006) and seeking to draw out actions from the community that are appropriate and sensitive to the local landscape.

While this pilot featured a fairly simple intervention that could be replicated by councils seeking to support local groups, it was equally a piece of social research into the structures, drivers and programs of two quite different sustainability focused community groups, the level of Council support and networking with other local groups, and the degree to which they focus on climate change adaptation and other aspects of sustainability.

Specific design elements of this pilot that recognized the importance of community-led engagement include: being guided by community leaders on whom to invite and how to invite them; asking participants to share and contribute their own ideas for resiliency; hearing from community leaders in other nearby towns; and, dedicating time to synthesize and capture reflections from the participants on their actions and achievements, what has helped them, and what is needed to meet their future aspirations.

4.2 The pilot activities

NEGHA wanted to build on the perceived success of an existing community group which focused on sustainability and community action, and explore whether this group could be replicated elsewhere. We acknowledged the highly contextual factors that supported this local group and were wary of piloting the establishment of a similar group. For the pilot we instead focused on the following objectives:

- Build awareness and networks for community resilience
- Explore how the existing group might extend its existing sustainability focus to include climate change adaptation
For this pilot, we ran workshops in the small towns of Harrietville (Alpine Shire) and Yackandandah (Indigo Shire). The intention of both workshops was to build the skills and capacity of existing community leaders, understand success factors and facilitate regional exchange. We identified that bringing representatives of the Harrietville group to meet the Yackandandah community, share stories of their project successes and also hear from the Yackandandah community would be a more appropriate form of regional exchange (and therefore focus for a pilot) than showcasing one community group’s model as a ‘success’ and suggesting that another community should take it up.

The workshops defined ‘resilience in a community or a system’ as the ability to utilize community resources to respond and transform in an adaptive way. While recognising the high level of resilience in both Harrietville and Yackandandah, it was still felt that these communities could benefit from additional assistance with practical tools and actions for climate change adaptation and behaviour change.

The workshops were designed to feature peer learning and draw on local knowledge. The last section of the workshops focused on practical actions to implement in the near future to build local resiliency. By inviting the groups to focus on successful projects they had implemented, and exchange stories with other groups, we focused on positive action.

4.2.1 Harrietville
The Harrietville workshop ran for two hours with members of the Harrietville Community Building Initiative (CBI) group at their regular meeting time and location. The workshop explored the focus and activities of the group, as well as factors that made the group successful and the activities the group wants to pursue in the future. In the workshop a council representative discussed the local Alpine Resilience Committee and other climate change adaptation or resiliency programs. The participants were very interested and engaged in this discussion as it led into discussion about other case studies of resiliency.

In addition, workshop outputs and interviews held before the workshop were shaped into a case study of Harrietville CBI, for the group and Council to use to profile the approach.

4.2.2 Yackandandah
The Yackandandah workshop consisted of a semi-structured focus group style discussion on current initiatives of the various groups, identifying some of the barriers, how these groups could be better supported to include climate change adaptation and actions that could be taken in Yackandandah in the future. It featured brief presentations from each of: Indigo Shire Council; Yack Sustainability; and Solar North East on their programs related to climate change adaptation.

The workshop was designed to explore the concept of resilient communities, the expected impacts and long-term trends of climate change adaptation and practical steps that individuals and communities could take to become more resilient. We framed the events in the context of the critical issues facing North East Victoria due to climate change and invited local people to
present at the workshops and discuss topics that were important to North East Victoria. We invited representatives from the Harrietville CBI to come to the Yackandandah workshop as a way of raising awareness about actions that Yack Sustainability could take and promoting regional exchange.

Having representatives from different groups come together and exchange stories was intended to connect existing community networks into stronger regional networks to build resilience and adaptive capacity. In addition, by connecting groups with a general sustainability focus (a focus on trends rather than shocks) with groups and programs that have a disaster preparedness focus (a focus on shocks rather than trends), we sought to create greater connection between these two areas of climate change adaptation.

4.3 Lessons

The workshops provided a way to ‘map’ a group’s activities and aspirations, as well as identify the groups’ success factors and needs. For example the Harrietville group identified the unwavering support of their council contact as a key success factor. Identifying the support needs of a successful group is an important part of local governments understanding the practical implications of establishing similar groups in other areas. Recent work into the experience of the transition movement and its relationship to councils highlights the importance of sharing a dialogue with council and the groups about what support is being given or what is needed (Storey 2011).

Harrietville participants stated that the best thing about the workshop was that it provided an opportunity to reflect on the activities of the CBI within a broader framework and allowed an exchange of ideas and information. It also provided scope to explore the future possibilities for the town. Yackandandah participants enjoyed the range of diverse stakeholders in the workshop and the networking opportunity to connect to other community leaders and share experiences. Participants said that as a result of the workshop, in future they might try to foster greater links within the community and work on the community calendar so that people are more aware of what is happening in the town.

Participants observed that there is a ‘need to link groups and businesses together in sustainable practices’ and suggested that the ‘role of council [is] to support groups that are really firing to overcome obstacles and achieve the initiatives—keep the momentum.’ In other words, it is better to identify existing community interests and strengths and to work with those, rather than trying to create new groups from scratch.

The workshops confirmed that similar groups in neighbouring LGA’s might not be connected. Even though the groups in Harrietville and Yackandandah were doing similar sustainability focused projects, neither of the groups had ever met nor heard of each other’s initiatives. It appears that there could be benefit in providing avenues for numerous regional groups to exchange information and share resources (such as lessons, project successes, templates etc.). This could reduce the time taken for new groups to become engaged with an issue and identify effective local responses.

The pilot also confirmed that specific grassroots groups tend to adopt a narrow focus that could potentially be broadened. For example, the Harrietville CBI focused on sustainability programs that help protect and enhance the local environment and on promoting profitable operations of local business through sustainability, including educating guests to use fewer
resources. However, none of their current work focuses on preparation for extreme events. On the other hand Alpine Shire supports a Community Resilience Committee (CRC), and it has an emergency planning and preparedness focus to its resilience work. Similarly Yack Sustainability focuses on local resilience in terms of self sufficiency (food swap), preparing for energy descent (advocating for walking and cycling routes between towns), and fostering connections and flows of information between groups (community calendar, facilitating meetings between groups); while a local community group (‘Fireflies’) focuses on emergencies, talking with individual communities to look at community and family habits, connections, and exploring issues around fear, denial, taking control and risks. Mapping existing community networks to understand who is doing what and where there might be gaps emerged as an important exercise.

The workshops confirmed that small towns often have a large number of community groups, and that coordination between active local groups poses a challenge. There was interest in strengthening existing groups rather than creating new groups. Bringing together both sustainability and emergency preparedness groups in the area around the themes of resilience could be a way to build connections between these areas of work. Facilitating exchange of information between the range of community led sustainability focused groups and programs and the range of emergency planning and preparedness groups would be useful, as well as coordinating information flows between them.

Existing community groups that have a focus on sustainability could be supported and assisted to facilitate an extended focus to include climate change adaptation. This would require sustained engagement with these groups over a longer period by Council.

While the pilot was too brief to claim to have made a contribution to building community leadership capacity, it demonstrated the value of strengthening relationships within and across Local Government areas: between council staff and community groups; between community sustainability groups of different LGA’s; and between sustainability and disaster preparedness focused groups both within and between LGA’s.

5. Mobile outreach activities

5.1 Theoretical framework

In addition to the ‘Brains Trust’ and community leadership pilots, we developed and evaluated a mobile outreach activity because the Councils sought to include climate change adaptation engagement in their existing sustainable living outreach programs. The intent was to provide ways to rapidly reach people at diverse locations, such as schools or community events.

The objectives of the mobile outreach engagement pilot were to:

- Raise awareness about climate change and resilience for individuals living in rural communities
- Enable individuals to select areas of action in which they believe they can improve their resiliency and that are relevant to them
- Help participants select a priority action and capture their commitment to do this action in a pledge.
Climate change messages that highlight personal vulnerability tend to bring about negative emotions in an audience and this can lead to fear, despair, feelings of helplessness and apathy (CRED 2009, Eckersley 2008, Futerra 2009). This is particularly true when people are uncertain about what they can do to respond. In response, one of our principles for the project was that community engagement programs need to be positive, inspiring and fun. They may use approaches such as those described above (visioning to draw out positive visions of the future or creative practices such as storytelling and community art projects) and be grounded in practical actions participants can take.

The principle of using diverse engagement techniques to cater to different learning styles and preferences strongly underpinned this pilot activity. Some people are visual learners, others learn through movement and doing and others learn through talking and discussion. To reach as many people as possible, community engagement programs need to use diverse engagement techniques that suit different learning styles and motivations. This means providing a suite of engagement techniques to suit different audiences, as well as using diverse facilitation techniques within any particular engagement.

Certainly, long-term engagement processes are more likely to produce impactful behaviour change results than one-off engagement activities (Moser 2010). However, in order to build on Council’s existing mobile programs and achieve the objectives outlined above, theories and methods that amplify the behaviour change outcomes of short interactions were used to inform the approach of this pilot. The pilot predominantly drew on the work of Les Robinson (2010 and 2013) and Doug McKenzie-Mohr (1999).

Firstly, we drew on Robinson’s guidance on facilitating behaviour change through an ‘action conversation’ to provide an overall framework for the design of this activity (Robinson 2010). An action conversation is one in which the facilitator guides individuals on a journey through the conversation, so at the end the individuals are motivated to take an action to create change. The journey of an action conversation follows a certain order of discussion. The series of questions Robinson espouses to take people on a journey from passion to action is: a heart then head and finally a hand question (Figure 3).

![Figure 3: Formula for structuring discussion](source: Robinson (2010))

The first question, a heart question, should get people talking about their own experiences, lives and feelings. In the case of this pilot, ‘What types of extreme weather events have you experienced?’ Robinson describes accessing these personal experiences and feelings as the first step towards taking responsibility.

The following question, a head question, Robinson suggests should get people thinking practically about what could solve the problem; for example: ‘What actions could make a difference?’ or ‘What have you already done to make a difference?’
The third question Robinson defines as *hand question*, or those that ask people to imagine themselves being part of the solution; such as ‘What would you love to be able to do?’ or in this case, ‘In which areas do you think you could become more resilient?’. Robinson emphasizes that this shift into personal, forward-looking action is a crucial moment in the discussion. Robinson states that a more formal plan to guide next steps should be discussed at the end of the action conversation. For this pilot, a personal resilience plan played an important role.

To develop the personal resilience plans, we drew on McKenzie-Mohr’s Community-Based Social Marketing (CBSM) (McKenzie-Mohr and Smith 1999), which provides guidance on selecting behaviours for promotion to a specific target audience when developing action plans. McKenzie-Mohr suggests that action plan behaviours should be non-divisible. For example, in relation to climate change adaptation, a divisible action to build resiliency against bushfires might be ‘clear flammable items away from house.’ This action can be further divided into ‘clear clutter from the gutters’, ‘clear all overhanging tree branches from house’, and ‘remove all lower hanging branches from trees.’ Each of these behaviours differ substantively in the barriers associated with them, therefore it is critical that behaviours are non-divisible to allow participants to focus on one set of barriers at a time. Additionally, when developing these actions, McKenzie-Mohr highlights the importance of noting ‘who’ will do ‘what’ for each action to provide sufficient information.

McKenzie-Mohr also suggests that behaviours be ‘end-state’ behaviours. In this case, end-state refers to the specific behaviour that *produces* the desired adaptation outcome. For example, ‘preparing a home emergency kit’ is not an end-state, but rather ‘preparing and knowing how to use your home emergency kit’ is.

Having created a list of non-divisible, end-state behaviours, McKenzie-Mohr highlights the importance of considering: 1. the behaviour’s impact 2. the probability that the target audience will engage in the behaviour, and 3. the existing level of penetration of the behaviour in the target audience.

### 5.2 The pilot activities

Participants in the mobile outreach pilot were able to choose from several activities to engage with. The activities were set up at an outdoor stall, staffed by facilitators that could be set up at a school or community event. For the pilot, we set up the stall on a grassed area near Wangaratta Council, in conjunction with a trial of the Council’s new eco-living trailer. Participants were mainly invited Council staff, although some local residents stopped by the stall as they were passing by.

The first activity was a mapping exercise used as a platform to access personal experiences and feelings as ‘the first step towards taking responsibility’ (heart questions). For the activity a map of the local government area was pinned to a board and individuals could select a pin that represented the type of extreme weather event they had experienced and insert the pin on the map in the location where they experienced this (Figure 4). The objective of this activity was to provide an opportunity for participants to reflect on and discuss what extreme weather events they have experienced and to build up a community display of collective community experience.
The second activity was a ‘Local Resiliency Tips’ board, which represented a transition into the ‘head’ discussion to get people thinking practically about how to increase their resiliency. Participants and facilitators discussed such topics as what participants have done previously to prepare for these emergencies or extreme events, good ideas for extreme event preparedness they have heard of and any support they need in order to further increase their resiliency. Key points of the conversations, or ‘tips’ for others, were written on the board for visitors to see (Figure 5). Capturing the tips was a way of validating local knowledge and previous actions individuals and communities have already taken to increase their resiliency, build a shared picture of community resilience and facilitate peer-to-peer learning in the community.

The final activity allowed participants to select from one to six different personal resilience plans that were relevant to their situation and interest (Figure 6). Our literature review of community engagement practices indicated that effective climate change adaptation uses a holistic analysis of people’s vulnerability to climate change, examining both current and projected climate risks. Therefore, a holistic analysis was used to create action plans to build
resiliency against both current climatic risks (e.g. bushfires, droughts, floods, heat waves) and projected climate risks (e.g. decreasing availability of resources and increasing costs of resources) (*Figure 6*).

The development of the personal resilience plans was based on the principles of CBSM. A small number of actions were presented by prioritizing based on those behaviours that have higher probability that participants would complete the action and have greater impact. In addition, each action was written to be non-divisible and an end-state behaviour. The participants chose a plan/s, ticked the actions they have already taken and wrote deadlines for achieving the remaining actions (*Figure 7*).
If willing, participants could have their photo taken with a sign of their priority action (Figure 8). This is a form of public commitment that can increase the likelihood that participants will follow through with their actions (Dawny and Shah 2005).

Figure 8: Photo pledges of priority action to increase resiliency.

5.3 Lessons

Participants valued the hands on nature of the activities, as evidenced by brief post-activity surveys. Several participants appreciated the opportunity to focus on their own experience by ‘articulating my story,’ and ‘talking through experiences in regards to the actions.’ The majority of survey respondents said their awareness of extreme weather events and climate impacts had increased as a result of participating. All respondents except for one said their awareness of personal actions for resiliency has increased.

The challenge of this pilot was to balance the context and expectations of a 5–10 minute interaction with participants and the objective of creating lasting climate change adaptation behaviors. While we had intended that participants would move through the three activities
sequentially, drawing on Robinson’s approach, this was not feasible in practice. It took 10–20 minutes per person to go through the activities. As each facilitator could only actively engage with between one and three people at a time, this process became very resource intensive and the total number of people engaged was limited. In practice, participants tended to self-select the activities they were interested in, rather than moving through them in the intended order.

The interactive design of this outreach pilot meant that participants contributed to and shaped each activity: the participants noted what extreme events they had experienced and where; they wrote tips on improving resiliency; they filled in a resilience action plan; and pledged on a priority action. If this outreach process were run in a series, the coordinators could use social media and online communities to capture the experience, knowledge and pledges of each community visited and then share and build on these outcomes with every new community. For example, the data gathered at each event could be uploaded to an online resiliency map, Facebook, Twitter or Tumblr. Additionally, this process, actions and eventually photos of people making pledges could be built into other action oriented websites, for the community or the region. We would anticipate that mobile outreach activities like these could be gradually adapted over time to suit each community where they are undertaken.

Conclusion: A toolbox for community engagement on climate change adaptation

The three community engagement activities evaluated here were all well-received by participants and showed potential to be further refined and implemented throughout North East Victoria and elsewhere. The best-practice principles on community engagement presented in Section 2 were validated by the positive experience with the pilot activities. In particular, our fears that community conversations on climate change would be polarized and conflictual, reflecting the way debate about climate change plays out in the Australian media, were not realized. Instead, the focus on climate variability rather than climate change, and on positive, practical actions that participants could take, seemed to create agency rather than antagonism. While some participants mentioned doubts about climate change, all of the conversations were very constructive and focused on things that participants could actually do. We conclude that the principles for community engagement on climate change adaptation presented here offer a useful basis for designing constructive activities at a local community scale.

Drawing on our desktop research on best practice in community engagement on climate change adaptation and our experiences with the three pilot activities, we propose a toolbox of ten community engagement activities on climate change adaptation, summarized in Table 1. Each activity is described along with notes on the intended audience and purpose of the activity.

The toolbox contains diverse activities suited to different audiences, locations and purposes. The intent is that local governments and other organizations can pick and choose from the listed activities as appropriate to suit the particular context and purpose of engagement. While the toolbox is not exhaustive, we believe it offers a useful starting point for local governments to engage their communities on climate change adaptation. These activities should be further refined by users to suit the local context.
Table 1: A toolbox for community engagement on climate change adaptation.

<table>
<thead>
<tr>
<th>Activity</th>
<th>Description</th>
<th>Audience</th>
<th>Purpose</th>
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<tbody>
<tr>
<td>1. Brains Trust workshop</td>
<td>Engage community ‘elders’ as a ‘brains trust’ to gather local knowledge and identify or test appropriate community engagement practices for the local context. The guiding philosophy is one of respect for the existing wisdom of seniors in the community. The precise activities will depend on the application but could include many of the other activities listed in this toolbox.</td>
<td>Older people and landholders with experience of climate variability, can include other community leaders</td>
<td>Consultation Piloting activities</td>
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<td>2. Facilitated emergency planning</td>
<td>Take individuals or groups through a facilitated process of developing an emergency response plan, using existing resources. There are many such resources that could be used, including guides developed by the Red Cross (Australian Red Cross 2009), the New South Wales State Emergency Service’s Flood Safe site (<a href="http://www.floodsafe.com.au">http://www.floodsafe.com.au</a>) or the New South Wales Rural Fire Service’s Bush Fire Survival Plan (RFS 2010).</td>
<td>All, but particularly older people and other vulnerable groups</td>
<td>Personal emergency planning</td>
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<tr>
<td>3. Climate resilience stories</td>
<td>Share personal stories of experiences with climate variability and responses. Can work at multiple scales, from a small workshop activity to a community-wide project. In a workshop, this kind of storytelling activity is particularly useful for building trust between participants by showing them that they have common experiences with climate risks. At a community scale, one way this activity can work is by having school students interview seniors to collect their stories. In this form, the activity is not only valuable for raising awareness of climate change and the need to adapt but can also help to improve community resilience by connecting older and younger people.</td>
<td>All, but particularly focused on older people sharing their stories with younger people</td>
<td>Raising awareness of impacts and responses Strengthening community networks</td>
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<tr>
<td>Activity</td>
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<td>4. Resilience posters</td>
<td>Develop a one-page poster with essential information for climate emergencies in a highly visual form. This is useful both as a workshop activity for individuals or small groups and at a community scale. As a workshop activity, this gets participants thinking creatively and encourages them to mentally rehearse what they would actually do in an emergency. At a community scale, competitions could be held for the best resilience posters, which could then be made available as a community resource.</td>
<td>All</td>
<td>Personal emergency planning&lt;br&gt;Raising awareness of community networks and resources</td>
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<td>5. Community resilience audits</td>
<td>This involves identifying existing community groups and networks in a particular location to audit what is already being done to build community resilience, which groups are well placed to do more and where connections could be made or strengthened. During our research it became evident that Councils and community groups did not have a good sense of which existing groups existed that could take on a role in climate change adaptation. Mapping existing groups is a first step towards providing support for these groups.</td>
<td>Councils, community leaders</td>
<td>Identifying community groups and networks</td>
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<td>6. Support and coordination for existing groups</td>
<td>Instead of establishing new groups, provide resources, support and specific training for existing groups to take a stronger role in building community resilience and adapting to climate change. This activity builds on Activity 5 above.</td>
<td>Community leaders</td>
<td>Strengthening community networks&lt;br&gt;Getting resilience and climate change adaptation on the agenda of existing groups&lt;br&gt;Building personal capacity to lead climate change adaptation actions</td>
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<tr>
<td>Activity</td>
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<td>7. Local and regional exchange events</td>
<td>Community groups are often unaware of other groups that are doing similar work, both locally and regionally. Regular community exchange events at different scales, from towns, to LGAs to regions can bring groups together and strengthen community networks. These events can play a dual role of information-sharing and social occasion.</td>
<td>Community leaders</td>
<td>Raising awareness of community networks and resources</td>
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<td>Strengthening community networks</td>
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<td>8. Regional climate resilience web portal</td>
<td>Establish a local or regional web portal to act as a clearinghouse for information on climate change resilience. The portal could provide real-time information during emergencies. It could also include a participatory Google mapping function to allow the community to share local experiences of climate impacts, identify examples of local actions to improve resilience and share emergency response plans.</td>
<td>General public, comfortable with Internet use</td>
<td>Raising awareness of impacts and responses</td>
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<td>Raising awareness of community networks and resources</td>
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<td>9. Community participation in resilience planning and recovery</td>
<td>Communities should be directly involved in resilience planning and recovery planning through deliberative and inclusive processes. It is easier to ensure community participation in long-term resilience planning and more difficult when rapid decisions need to be made in the aftermath of severe climate events. Nevertheless, if there is genuine community participation in planning and decision-making, there is more likely to be ownership of outcomes.</td>
<td>Community leaders or randomly selected general public</td>
<td>Consulting and involving communities in decisions about climate change adaptation</td>
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<tr>
<td>10. Mobile outreach activities</td>
<td>Use fun activities to engage and motivate people to take climate change adaptation actions in diverse locations such as markets, festivals, fetes and schools.</td>
<td>General public</td>
<td>Raising awareness of impacts and responses</td>
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<td>Motivating individual action to adapt to climate change</td>
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References


