VCCCAR think tank report

Climate change and health in the regions
RMIT Hamilton campus: 29th July 2010

Contents

Executive summary

The workshop brought together local stakeholders, scientific researchers and policy makers, and consisted of both formal presentations and interactive break out groups to explore some of the challenges facing key vulnerable groups – older population, farming and Indigenous - in regional Victoria. The workshop aimed to identify and better understand the likely climate risks (amongst other drivers), to improve our understanding of the factors that increase vulnerability for each of these communities (in relation to human health), and to begin to map out effective adaptation strategies and how best to support the building of local adaptive capacity. Important outcomes of the think tank were to identify knowledge gaps and areas for further collaborative research, as well as highlighting how adaptation can be promoted through improved policy and practice. Indeed, an important additional function of the discussions was to encourage community input to local and State decision-making processes in a meaningful way.

Reflecting on the discussions and outcomes from each of the break out groups, and the interactions from the day more generally, it is evident that there are some important 'common' issues and concerns that cut across the different community groups represented at the workshop. These key messages from the stakeholder community need to be important considerations for policy makers and academics alike as we seek to plan for more resilient Victorian regional communities in the face of social, economic and environmental changes.

From the editors' perspective these can be summarised as:

- Adapting to climate change is an extremely complex issue and there was a general workshop consensus that a 'one size fits all' approach was inappropriate – in particular, responses need to fully cognisant of the local context. Voices also suggested that new ways of thinking are needed, beyond a 'business as usual' pathway.

- It needs to be recognised that there are many drivers of change that are affecting the vulnerability of different parts of the community (typically socio-economic), climate change is just one additional stressor; though it may be a strong influence on amplifying existing vulnerabilities.

- The decision-making approach that underpins adaptation not only needs to shift emphasis away from a purely emergency response focus to one more anticipatory in nature, but also needs to consider multi-hazard risks rather than a traditional framing of single issues – drought, heat waves, bush fires etc. This multi-hazard approach may also be of relevance to adaptation responses e.g. multi-purpose refuge centres.

- Climate change issues are often framed in an environmental context – the adaptation message would have greater resonance when being more explicit about the social and cultural implications of risks and adaptation. It was also suggested that a greater tie in with current concerns, rather than the complexities of future climate change would strengthen the narrative in ways that local communities could better understand.

- Issues of language around "climate change" can make discussion of the issues much more emotional than they perhaps need to be. Moving away from discussion away from the negative message of climate risks towards the more positive dimension of "adaptation" could perhaps build community consensus.

- A generic discussion across all groupings related to the definition (and identification) of vulnerability. Here, it was recommended that the research community has an important role to play in better defining and identifying who (or what) is vulnerable, where they are located, and the adaptation options available.

- Even for those who may be considered (or see themselves) as more resilient, the predicted increase in frequency and severity of climate-related extreme events will challenge current perceptions, norms and behaviours.

- Whilst those with a strong cultural and/or economic connection to the land are likely to follow good management practice (which can be labelled as good adaptation practice), on the flip side adverse change may in such instances lead to increased mental health issues.

- Public policy, and more specifically Government support and intervention, was given an average report card and was ultimately seen as a 'mixed blessing'. There was a clear message that Government needs to 'get its own house in order' – issues raised included:

- o improved vertical and horizontal integration of governance arrangements to ensure greater coherence of policy and effectiveness of implementation;

- o a move away from a 'silo-ed' approach to climate change adaptation and greater cross-departmental activity and support for adaptation;

- o adaptation needs to be broader brush than being limited to health – a more comprehensive approach that deals with community well-being is needed;

- o more careful consideration given to policies that may inadvertently lead to instances of maladaptation; and

- o ensure effective participation through all phases of adaptation decision-making.

- Interestingly, there were several occasions when the legal dimension of both risks and adaptation were raised as matters of concern by the different groups. This is a new area for policy and academic knowledge i.e. to think through some of the future liability issues, particularly around areas of public intervention.

- A call for greater efforts at improved participation and community outreach was also levelled at the academic world – all groups stressed the need for improved connection between science and real world implementation. Participation would also help to support the building of trust and understanding with different community groups.

- Perhaps the over-riding message resonating from this workshop was the critical importance of improved lines of communication. There are clearly issues surrounding clarity and consistency of the information reaching different parts of the community. 'Information overload', whilst still not getting the key risk and adaptation messages across to regional communities, is clearly a key priority needing to be addressed. Innovative mechanisms of delivery, ensuring equitable access, and tailoring of the information in a format suitable for the intended audience, are priority knowledge gaps facing both the scientific and academic communities of Victoria.

- All groups also emphasised the need for decision-makers to learn from, and make better use of, local experience and knowledge i.e. making full use of existing community IP. It was also stressed that effective institutional arrangements already existed in some cases and their value needs to be recognised (and used in support the adaptation agenda), rather than constantly re-inventing the wheel. Community cool spaces and 'buddy' systems were highlighted as innovative examples that could be used in the adaptation context.

- The empowerment of local communities, through information, education, and resourcing, was considered vital in underpinning resilience building. Furthermore, ensuring access to social networks and maintaining a sense of community were constant themes throughout the day's discussion. It was also highlighted that the different local communities could learn from each other.

- VCCCAR (in collaboration with other 'expert' organisations such as CSIRO and BoM) can play an important facilitation and knowledge transfer role which enables 'learning for adaptation' to occur in regional areas. The possibility of road shows was voiced as one potential way for this to happen.

- Ultimately, healthy country = healthy people!!

Context

With more than a decade of drought conditions and the impact of devastating bushfires and a concurrent heat wave in 2009, many communities in the State of Victoria have direct personal experience of coping with weather-related extreme events in recent times. However, it is increasingly recognised that climate change will act to amplify these impacts in the future, with extreme events predicted to increase in both frequency and intensity in the coming decades; thus directly and indirectly increasing health risks (and affecting quality of life) of those communities already the most vulnerable.

In response to this critical agenda, the VCCCAR think tank held in Hamilton on the 29th July 2010 deliberately focused on three different regional communities that have been identified as particularly vulnerable to future climate risks. These were:

1) Older people, particularly those who are newcomers to regional / rural living;

2) The farming community; and

3) The Indigenous community.

This was the 3rd VCCCAR Think Tank of 2010 (see website for further details: http://www.vcccar.org.au).

Venue

RMIT University Hamilton Conference Centre, 200 Ballarat Rd, Hamilton.

RMIT in Hamilton: Hamilton sits in the centre of a well-identified farming community. RMIT is involved in a range of research programs relating to regional development. The Potter Rural Community Research Network focuses on complex problems and rural futures on environmental, social and economic themes.

Hamilton is also the home of the National Centre for Farmer Health at Western District Health Service (WDHS). The Centre, headed by Sue Brumby, has initiated a unique program which is now recognised nationally and within several primary industries. The main health program assesses basic health data and works with farming families to manage their health through a structured program and where possible, local trainers. The program has now been running several years.

Steering Committee

Darryn McEvoy, Leader, Climate Change Adaptation Programme, RMIT University

Kaye Scholfield, Learning Community Partnerships, Manager, RMIT Hamilton

Jeni Warburton, Chair JR Initiative, La Trobe University Wodonga

Kate Auty, Commissioner for Sustainability, Sustainability Victoria

Agenda for the day

10.00 – 10.30: Registration and coffee

10.30 – 11.00: Welcoming speeches

- Welcome to Country: *Aunty Euphemia Day*, Gunditj Mirring Elder

  Aunty Euphemia welcomed the participants to country. She put climate change in the context of the length of time that Aboriginal people have been living in the area and particularly around Lake Condor. She reflected on the previous abundance of food in the area, the clean air, and the great lifestyle available to Aboriginal people who had lived sustainably off the land. She talked about the changes she has seen in her lifetime, and she wished the workshop well particularly given the importance of the topic.

- Welcome to RMIT University Hamilton: *Kaye Scholfield*, Manager, RMIT Hamilton

  Kaye welcomed the participants to RMIT Hamilton. She reflected on the projected population growth for the area, an increase of up to 25% by 2026, as well as noting that in the Hamilton region there is a large Indigenous community with a strong cultural commitment to the area, a substantial farming group, as well as a significant proportion of older people. It was commented that new arrivals to the area are a group of potentially vulnerable people who are often overlooked in the regional context. Supporting this, it was highlighted that one new family a week is moving into the local area. One suggested driver for this is a strong push factor - a result of the lack of water in the north of the state.

11.00 – 12.45: Plenary presentations

- Introduction to the workshop - *Darryn McEvoy*, Leader, Climate Change Adaptation Programme, RMIT University

  Darryn thanked the introductory speakers and informed the audience of the intended scope and structure of the workshop. He also advised that the plenary presentations would be made available for download from the VCCCAR website. Acting as chair of the plenary session he then introduced the first speaker, the Director of VCCCAR, Rod Keenan.

- Introduction to VCCCAR, *Rodney Keenan*, Director, VCCCAR

  In his presentation, Rod introduced the rationale for the Think Tank, saying that there was a need to look at the integration of problems across multiple perspectives. He acknowledged the presence of the Indigenous community and looked forward to their contribution during the day. He highlighted VCCCAR as a new centre of excellence, bringing together agencies interested in climate change research and supported by a range of resources from government. It was stressed that with climate change there were new risks but there may also be new opportunities and that it was necessary to anticipate the changes and make planning decisions informed by the best possible evidence.

- Health issues in regional Victoria, *Susan Brumby*, Director, National Centre for Farmer Health (NCFH)

  Sue's presentation started with a quiz to test delegates' assumptions about farming communities. She followed this by saying that responses to the needs of farming families have to date been reactive, covering drought relief and the like, rather than being more proactive and anticipatory in nature. A key issue to be addressed is the fragmented nature of current responses to farming problems. She also pointed to a lack of specific data on farmers; particularly on the (in) stability of farming populations, and on health data for the sector. In this regard, it is important to note that a farmer's life expectancy is shorter than that of a city worker, that there were high obesity levels in the farming community, and that the farm population is also an aging one. Finally, Sue commented that there was a great diversity in the understanding of climate change amongst farmers, ranging from 29% who have changed their

farming decisions due to climate change and 20% who cited climate change as a factor that increased stress within their daily lives.

- Perspectives from the Department of Health, *Julie Hoy*, Manager of Community Health Risk, Department of Health

Julie gave some background to current State Government activity: for instance, a climate change white paper has recently been launched; in this paper one action (of a total of ten) explicitly mentions the need for adaptation. Whilst this is seen as positive, it is important that Government departments, academics, and other affected groups maintain this important emphasis on better preparing communities for future climate challenges. It is no longer a case of acting according to 'business as usual' and we need to think beyond standard practices and decide what to do differently in order to ensure a more sustainable future. Past responses to climate change include the State drought strategy, heatwave plan, and the identification of potential health and wellbeing impacts. For instance, the Department of Health is currently undertaking an evaluation of all the heatwave activities detailed in the Victorian Heatwave Strategy, including the response to the 2009 heatwave. As an example of a potential model for undertaking collaborative research, Julie presented the framework and guiding principles from the Victorian Centre of Excellence in Intervention and Prevention Science (CEIPS). Stage 1 of a study on climate change impacts on population health and vulnerability is funded and underway. Some of the research issues relate to how to develop an understanding of risk in relation to heat i.e. there is a hypothesis that people in rural areas did better than people in the cities during the heatwave, and this may be because of stronger community ties and better understanding of how to deal with heat. The importance of connecting research with implementation at a local council level was identified as particularly important.

- Climate change scenarios *Kevin Hennessy*, Principal Research Scientist, Marine and Atmospheric Research, CSIRO

Kevin gave a comprehensive, and well received, presentation that covered the reliability of different sources for climate change information, the observed impacts (and causes behind the changes), as well as illustrating what future climate scenarios meant for Victoria. In the first instance, it was noted that information about climate change can be accessed in a variety of different ways and through different sources; though it was stressed that the scientific peer review process was an essential mechanism to ensure non-bias. In this regard it was noted that Victorian climate change scenarios have been peer reviewed by CSIRO and BoM. When discussing observed changes, evidence shows that both ocean and near surface temperatures have risen. It is very likely that global warming since the mid-20th century is mostly attributed to human activity. His presentation showed that the temperature in Australia has risen 0.7°C since the 1950s, there is more rain in the NW and less in the SE of Australia, and in SW Victoria there has been an unprecedented drying over the past 13 years, especially in autumn months. In future, Victoria is expected to become warmer and drier, with more heatwaves and fires, less frost and snow, more droughts and extreme rainfall events, and higher sea levels. Managing these risks will involve both adaptation and emission reductions.

12.45 – 13.30: Lunch break

13.30 – 15.00: Break out session 1: risks and adaptation (parallel sessions)

- Older people / new to rural living. Facilitation Jeni Warburton
- Farming community. Facilitation Sue Brumby
- Indigenous community. Facilitation Kate Auty

15.00 – 15.20: Coffee break

15.20 – 16.20: Break out session 2: implications for policy and practice

- Older people / new to rural living. Facilitation Jeni Warburton
- Farming community. Facilitation Sue Brumby
- Indigenous community. Facilitation Kate Auty

16.20 – 16.50: Report back and summation

Each group reported back on their discussions (see next page for more detail on the break-out groups)

16.50 – 17.00: Thanks and wrap-up

Rod Keenan thanked the speakers and the delegates for their time and valuable contributions throughout the day. Darryn McEvoy advised that the workshop report would be circulated once completed.

Break out group sessions:

The intention of the break out groups was to create a discussion space to reflect on existing issues affecting different vulnerable communities in the regions, and to interactively explore the implications of future climate change (as showcased by the final presentation of the morning - Kevin Hennessey, CSIRO). Groups were given a pre-agreed semi-structured format, intended as guidance rather than being prescriptive, which set out to address the following:

Session 1 (risks):

- What are some of the key existing health-related issues affecting the community?
- What is the anticipated impact of climate change as an additional stressor, and what are the key climate-related hazards of most importance?
- What climate, or other scientific, information is needed to better understand future risks?
- What format of information would be of most value to the different sets of end users?
- How important is the role of local knowledge and how it can be most effectively integrated with mainstream decision-making?

Session 1 (adaptation):

- What information is needed to better inform adaptation responses?
- Have adaptation options already been identified?
- What enabling mechanisms would help to remove barriers to their implementation?
- What opportunities are there for supporting adaptation?
- Is it possible to identify roles and responsibilities of different actors (across sectors and spatial scales)?

Session 2 (synthesis and implications for policy and practice):

- Are there generic issues that cut across all communities?
- What are the gaps in knowledge that need to be addressed for more effective responses?
- Are there lessons that can be learned from recent extreme weather events i.e. drought?
- Are there any recommendations arising for State health policy?
- Are there any recommendations arising for local health practice?
- What are the implications for decision making under uncertainty?

**Older population break out group:
led by Jeni Warburton.**

Farming break out group: led by Sue Brumby & Kaye Scholfield.

Report back from the Indigenous group: Kate Auty, Commissioner for Sustainability, presenting. Rod Keenan chairing.

Older population

Facilitator – Jeni Warburton (La Trobe University, Albury Wodonga)

Rapporteur and note taker – Cecily Maller (RMIT University)

Participants:

Mandy Stewart, Horsham Council, Horsham

Robin Harvey, CSU

Julie Hoy, Department of Health, Department of Human Services, Melbourne

Martina Dennekamp, Monash University, Clayton

Oliver Moles, Moyne Shire Council, Port Fairy

Matthew Caroll, La Trobe University, Churchill

Margaret Loughnan, Monash University, Clayton

Patrick White, Rural Financing Counselling Service, Hamilton

Jo Brown, Southern Grampians and Glenelg Rural Partnership, Hamilton

Becky Morton, Western District Health Service

Responses to the plenary presentations:

- Dementia is missing as a factor complicating the issue/discussion.
- Health care policy:
    - o Connections need to be made between infrastructure and health outcomes.
    - o Encouragement of aging at home, therefore there is a need to factor climate change into health policies (may increase risk).
- Ageism: it has been argued that the elderly tend to be 'written off' during heat events because they are perceived as more expendable. This raises important quality of life and equity issues.
- 'Invisibility' of heat stress; not as dramatic or visual as other events such as bushfires. Less media attention is given to the issue and it is not afforded the same urgency.
- However, heatwaves and bushfires tend to occur together and it is naïve to try to untangle them. Both hazards need to be considered together.
- Mental health issues: anxiety can be found in all age groups regarding bushfires and climate change. There is particular anxiety amongst the older population who may feel less able, or less confident, to respond to emergencies.
- The notion of 'solastalgia' was discussed (see Albrecht, G. et al.); this relates to mental ill-health from environmental destruction/change.
- The legal and liability aspects of impacts, and possible adaptation, have been missing from the discussion to date.

Risks

- A key concern relates to the prices of utilities, electricity in particular. Also noted that there are problems of peak demand, and that air-conditioning is not the solution. Indeed, it could have the perverse effect of increasing the vulnerability of those dependent on it.
- The potential for mal-adaptation was highlighted i.e. inappropriate responses that increase vulnerability or risk.
- Housing design and insulation are also important issues. Housing needs to be appropriate for older ages, with diversity still important. Poor housing is highly likely to exacerbate health issues.
- Acknowledged that there is no 'one size fits all' solution.
- Mobility and access to services is critical, this may require assistance.

- The question of vulnerability was raised. Stressed that we still do not know who is most vulnerable.
- Responses to a question posed by the facilitator: 'Are there specific risks for older people?'
  - Solutions which work for older people will also be relevant for all other sections of society.
  - Cardiovascular and chronic diseases; relationship between co-morbidity and morbidity.
  - Reliance on others: some services and support that elderly people rely on are vulnerable to climate change and hence will be unavailable to those who need them at the most critical times (e.g. home care workers who are unable to work because of temperatures over 35°).
  - Mobility and physical activity, which are recommended for healthy ageing, may be impacted by climate change.
  - Home ownership – traditional family home occupied by elderly people may not be well adapted for climate change (e.g. four bedroom house occupied by one or two older people, open plan etc).
  - Independence – can be both an asset and a hindrance. Older people can be self-reliant but can also be resistant to assistance i.e. may not consider themselves vulnerable.
  - Social factors are also important to consider e.g. divorce rates are higher than previously resulting in many ageing alone (relates to broader issue of social isolation).
  - Food safety; risk of contracting gastroenteritis increases vulnerability, particularly for older people.

Adaptation

- There are substantial amounts of local, practical, generational knowledge and expertise that could be better utilised ('nana-technology') – make the most of it (e.g. residents, local councils and service providers).
- Home adaptation – retrofitting of housing an important adaptation response.
- Recognise, and seek to maximise, independence as a positive. This relates back to the question of who is actually vulnerable.
- Recognise the social and historical context of older peoples' experience. They have lived through many changes already, without air-conditioning (and before climate change).
- Need to understand when people are capable of looking after themselves and when intervention is necessary.
- Potential for reduced independence as a result of misguided policy making and programs i.e. perception of older people as vulnerability (universal assumption). This is not always the case. In this regard, the different needs of sub-groups of older people need to be recognised and understood (e.g. chronically unwell versus independent).
- Those with adaptation responsibilities should have greater consideration of elderly people as an asset – possessing both knowledge and resources e.g. many are involved in CFA and other local community services.
- Despite having adapted in the past to change, this may not automatically prepare older people for the impacts of climate change which are likely to be more severe than previous changes experienced e.g. intensity and frequency of heat events.
- There are also increasing concerns about the policy implications of liability; with fear of liability leading to the withdrawal of public services.
- Comparison of rural and urban adaptation issues is not always appropriate (e.g. distances and access to services can differ greatly).
- 'Talk to neighbours' strategy is seen as a good adaptation measure.
- It will be important to determine prioritisation of actions in order for governments and individuals to be better prepared.
- Duty of care/risk/choice – more research is needed to feed into impact guidelines.
- The importance of clearer delineation of roles and responsibilities was stressed. Who is responsible? Which service/s?
- Greater focus on anticipatory planning, well in advance of events (e.g. bushfire ready plans). Three strategies need to be promoted: 1) behaviour; 2) adaptation of housing; 3) prioritise vulnerabilities.
- Communal cool spaces.

- o Power issues will need to be considered (e.g. back-up generators).
  - o Location and design of cooling centres need to be analysed.
  - o Need to maximise non-air conditioned centres (this is considered a priority).
- Link heat stress strategies with bushfire safety and policy.
  - o Some aspects can be conflicting – e.g. 'stay at home' policies.
  - o Potential for joint/multipurpose refuge centres.
  - o Councils could have a significant role (e.g. adapting existing community centres).
- Mental health aspects associated with 'code red' days. Ability to make decisions may be impaired, and there is a high chance that older people may not be able to respond appropriately (disruptive to routine). This can be further complicated by a 'cry wolf' syndrome when warnings do not materialise into real world events.

Synthesis and implications

- Research questions that need to be addressed:
  - o What knowledge do older people already have?
  - o Who is most susceptible / vulnerable, and where are they located?
  - o What makes some people more able to adapt than others?
- Messages for Government:
  1. No one size fits all solution, or assessment of vulnerability, will be appropriate.
     - Recognise that older people are part of the solution;
     - Research is needed to understand, document and maximise local knowledge (see discussion above);
     - Sustainable and holistic approaches are needed i.e. not just relying on air-conditioning
  2. Communication strategies are critical
     - Consistency of the message is important across agencies (language appropriate to audience);
     - Use of different networks and peer-to-peer education.
  3. Utilise existing resources of local communities
     - Don't reinvent the wheel;
     - Use local plans;
     - Identify and target those most vulnerable within communities;
     - Idea of older people being interdependent rather than independent.
  4. Government program design
     - Ensure an adequate reach of programs – out to communities where help is most needed;
     - More innovative funding designs may help to stimulate adaptation;
     - Important role to facilitate change;
     - Government wide initiatives rather than siloed perspective;
     - Long-term approach needed;
     - Policy savy / awareness of opportunities for change.
- Strategies (based on discussion above):
  - o Look to maximise existing local council programs (e.g. communal cool spaces);
  - o Value and utilise local knowledge;
  - o Recognise that a diverse set of strategies may be needed for different types of older people;
  - o Actively promote retrofitting / appropriate design of housing to improve thermal comfort;
  - o Education/behaviour campaigns are seen as holding great potential for change– creative strategies need to engage with peer-to-peer programs and those that empower change agents;
  - o Support further research to tease out the complexities involved in reducing vulnerability.

Farming community

Facilitators – Sue Brumby (National Centre for Farmer Health) and Kaye Scholfield (RMIT Hamilton)

Rapporteur and note taker – Jane Mullett (RMIT University)

Participants

Belinda Campbell, Bureau of Meteorology

Wendy Cisar, Manager, Community Health, Tallangatta

Brian Gardiner, Rural Finance Counsellor, RFCSV-WSW

Robert Grenfell, Senior Medical Advisor, Dept of Health

Greg Lowe, Rural Finance Counsellor, RFCSV-WSW

John Martin, Prof. & Dir CSRC, La Trobe University

Debbie Milne, SRFCC, RFCSV-WSW

Zoe O'Callaghan, PhD student, JR Initiative, Latrobe University Wodonga

Rosie Rowe, Director, PEPH WDHS

Wayne Stephen, Rural Counsellor, RFCS-WSW

Vince Thorne, Rural Counsellor, SWRFC

Malcolm Wyeth, Rural Finance Counsellor, RFCSV-WSW

Responses to the plenary presentations

Sue started the discussion by placing on the table an advertisement from an overseas conference that links the production of meat for human consumption with the production of greenhouse gasses. Discussion included:

- Questions around farming methods, lack of public knowledge and climate change;
- Climate change adaptation is often associated with radical 'greenies' by the farming community;
- There is a cycle where farmers give up in 'defeat';
- Ways to allow farmers to leave the industry with dignity;
- To some extent, there is climate change 'overload', people are tired of hearing about it, without necessarily understanding it;
- "Get Kevin Hennessy of CSIRO to talk to every farmer – but don't use the words climate change!!"

Risks

- Aging farm population
    - o Most farms are still family-run concerns - succession planning is difficult;
    - o The law states that farmers have to have all legal affairs in order 5 years before retiring and passing the farm over to a relative – this makes the decision to retire more difficult;
    - o There is 'decision paralysis' – can't make a living on the farm, but can't get out either;
    - o Older farmers are not retiring - risks related to aging and physical labour outside – falls, chronic diseases, cancers etc;
    - o Women are often not able to leave a relationship – pressure to keep the farm.
- Changing demographics of rural communities
    - o Low-priced housing in rural areas has led to new poor communities moving into rural areas without the services to support them;
    - o There is increasing stress on existing support services;
    - o The older farming community and the new people often don't mix – new people can be at risk without community support networks;

- o Farms and the farming community are being separated from the local town community;
  - o Dense social networks amongst farmers can affect critical decision-making.
- Economics
  - o Rural areas changing to semi rural – changing the town's income prospects;
  - o Risks related to farming enterprises – farmers have to be business people too;
  - o Rising land values creates succession problems.
- Mental health
  - o Mental health /depression – "if I don't own the farm I'm a failure", too many complex choices, a great deal of change in a short time;
  - o Need more government commitment to rural health – preventative services, and value existing networks.

Adaptation

- Farmers are either coping and adapting, or they are not.
- The drought has:
  - o Forced some farmers to become more efficient but been an additional stress on some already stressed farms;
  - o Reduced recreation in the area (no sports ovals, swimming etc) which has reduced local amenity and community resilience.
- Government support has been a 'mixed blessing'
  - o Drought support has enabled some inefficient farmers to stay in business;
  - o Support is changing, there are new rules, more paperwork and this is adding to stress- ('drought support' is available until March 2011, 'climate adjustment program' is available until 30 June 2011);
  - o Lack of long term and reasonable funding commitments by government.
- Need for more effective communication about climate change and adaptation
  - o Many farmers do not understand climate change but have deep local knowledge;
  - o Education and information campaigns are needed – successful adaptation stories, visits to successful farms that are adapting, information at: one-on-one, men's health nights, saleyards, schools, footy clubs, the 'drought buses' brought in by Centrelink were initially very successful;
  - o 'The wife' often pushes for change – importance of women in education and changing behaviour.
- Responses to the recent changes in weather
  - o The community that looks out for each other is better off;
  - o Rural people know what to do in the heat;
  - o Who's where and how to find them;
  - o One set of numbers that everyone understands;
  - o One set of maps.

Synthesis and implications

- Cross-cutting issues:
  - o Aging and chronic disease
  - o Experience of stress
  - o Lack of sufficient government support
  - o Changing demographics and loss of services
  - o Clarity of message
- Research questions to be addressed:
  - o What knowledge do farmers/local communities already have? How is this transmitted from generation to generation?

- o What is the effectiveness of existing services?
- o What networks are already in place and functioning well?
- o How to manage good research when the target groups are small in number?
- o How to communicate abstract ideas and turn them into concrete action on climate change adaptation?
- o What makes some farmers/communities more able to adapt?
- o How to support the education of rural women?
- o How to understand the 'creeping' centralisation of government, or how to support regional strengths?
- Messages for government
    1. Demographics
        - o Changing demographics have implications for rural towns' well being;
        - o Passing the farm to the next generation is not simple;
        - o There are farmers who have adapted and are coping and others that have not;
        - o Identify the farmers who are not coping and provide a range of support from new farming knowledge to mechanisms to leave the farm with dignity;
        - o Identify who is at risk and where they are.
    2. Communications
        - o Clarity and accessibility of message are important.
    3. Local community resources
        - o Use existing functioning networks;
        - o Use the positive stories of farmers that have adapted;
        - o Farmers have a lot of deep local knowledge.
    4. Government program design
        - o Current support programs are confusing - simpler longer term programs are needed;
        - o Climate change is only one of many challenges facing rural communities;
        - o Facilitate change with local support;
        - o Educate rural women
        - o Create simpler, clearer resources (e.g. maps) that are universally available.

Indigenous community

Facilitator – Kate Auty (Commissioner for Sustainability)

Rapporteur and note taker – Caroline Bayliss (RMIT University)

Participants

Euphemia Day, elder, Gunditj Mirring

Robert Day, member, Gunditj Mirring

Rod Keenan, Director, VCCCAR

Damein Bell, Chair, Gunditj Mirring /traditional Owners Aboriginal Corporation

Julie Hoy, Manager Health Risk, Dept. of Health

Shoni Maguire, Regional Deputy Director, Bureau of Meteorology

Kevin Hennessy, Climate Scientist, CSIRO

Climate and scientific knowledge needed

- Ongoing work between CSIRO and BOM with indigenous communities
    - o Capturing knowledge (cc observations e.g. 6 seasons)
    - o Adaptation behaviours to date e.g. NRM practices
    - o Provision of targeted information
        - ▪ Impacts
        - ▪ Solutions
        - ▪ Adaptive capacity
        - ▪ Address current assumptions/concerns
- Develop mechanisms / avenues to:
    - o Communicate to the broader community about traditional cultural land management practices e.g. Lake Condah; SD Project (NRM in Parks Victoria community engagement).
- Future climate change scenarios for region.
- Recognition of local knowledge e.g. Budj Bir Rangers as co-authors of Arthur Rylah eel study.
- Must avoid mixed messages e.g. during fire season.
- Need effective early warning systems that are trusted and understood by the community.

Key existing issues related to health

- Alienation from traditional land management, agricultural, aqua-cultural practices – concern that this may be exacerbated by climate change.
- Reduced capacity to retain traditional NRM / cultural practices e.g. water.
    - o However, there is opportunity to demonstrate the success of the traditional ecological practices to the broader community;
    - o "Community IP';
    - o Value of local knowledge needs to be recognised;
    - o Need to share to protect – new knowledge partnerships.
- Enormous community pride, self-respect from empowering itself to take the lead on "caring for country" – needs to be preserved and built upon.
- Concern about coastal inundation.
- Concern to protect integrity of Glenelg River and other local waterways.
- "Healthy country = healthy people".

- Getting land back in 1980's helped the community survive (connection between country and community wellbeing).
- Budj Birr Rangers:
    o Employment opportunities
    o Educational literacy
    o Educational wellbeing of young people: pride; empowerment
- Growing up on country
    o Western education (science) coupled with cultural knowledge
- Partnership with Glenelg-Hopkins CMA "Caring for Country"
    o Development of tool kit
        ▪ Others can learn from indigenous traditional practices
    o 1st in Australia
    o Leadership breeds inter-generational solidarity, pride and stronger sense of community
- Poor health, (physical and mental) Gunditj Mara have already experienced this since the invasion
    o Have built up resilience
    o Self determination – not passively relying on Government but being proactive in making demands of Government
    o Self belief
- Recognition that other members of the broader community will experience vulnerability and adverse health outcomes due to climate change
    o Can VCCCAR and others such as CSIRO, BOM, DoH etc assist in translating the adaptive capacity and knowledge of indigenous communities to inform adaptive capacity strategies for other vulnerable communities?
- RECOMMENDATION: DOH should allocate dedicated counselling / "pastoral care" including mental health care crews in summer and bushfire seasons.
- In some communities, Councils have set up "Buddy Systems" – older/younger neighbours.

Adaptive capacity (current)

- Strong community networks
- Lots of traditional wisdom
- Role of legislation / regulations? But how do you punish people for mal-adaptation?
    o Lag factor
    o Personal responsibility
- Behavioural change is hard because some people will continue TO BE STUPID / (despite information and education and regulation)
- RECOMMENDATIONS:
    o SV Primary Care Partnership – Energy Efficiency programs targeted to indigenous communities
    o VCCCAR can facilitate in collaboration with Gunditj Mirring
        ▪ forums (info exchange); and
        ▪ partnerships
    o Promote practical mitigation and adaptation initiatives in households/communities
        ▪ What's available
        ▪ What worked
    o VCCCAR can also facilitate discussions with indigenous communities about Determination of Indigenous Community
        ▪ Health – how is it defined?
        ▪ How are policies targeted etc?
        ▪ Inextricably linked to country.

Policy and Practice Implications:

- Need to have greater synthesis between State and Federal Govts/ Agencies
    - o Land is critical for engagement of Federal Government – opens the door
- Funding
    - o Climate change $ through land and water funding avenues
    - o Should not be packaged as assistance to "disadvantaged" groups
    - o Similarly the word "opportunity" is vague and too forward-looking; need to focus on "maintaining" or "increasing" health – of people; of country
- Need to get climate change and health impacts etc on the Victorian State Health agenda, not only the Environment and Energy portfolios/ministers – DOH would be a relevant authority:
    - o So that climate change policy has multi-departmental 'ownership' rather than being seen as the preserve of one particular department.
    - o DPCD (Community Development arm) needs to be "in the tent", and should be encouraged to make the link between health and community development.
- State Adaptation Plans (in Victorian climate change White Paper)
    - o Need to advocate for local community Adaptation Plans;
    - o Informed by community consultation;
    - o Not focussed on environmental aspects, but including social and cultural dimensions, especially health and wellbeing.
- State of Environment Report to focus more on links between climate change and health in rural and regional communities.
- Local partnerships between groups on energy efficiency – practical initiatives in households in small communities, e.g. partnership between primary care partnership and Gunditj Mirring.
- Focus on health and reach constituencies that are not the "usual suspects" (i.e. not normally reached)
    - o Get University researchers involved e.g. Centre for Design RMIT – action research on behaviour change in communities e.g. the influence of smart metres in changing behaviour;
    - o VCCCAR can play a facilitation role because of its multi-disciplinary nature;
    - o Site: Gunditj Mara land – cross-cultural learnings.
        - ▪ The "Business Place"
- Need to promote dialogue at State Policy level that no longer compartmentalises "climate change & economy", "climate change and environment, "climate change and health" – to a more holistic approach that incorporates cultural, aspects, and promotes community wellbeing in the face of climate change.
- Need to promote the connection between country and community wellbeing in all policy discussions around climate change. HEALTHY COUNTRY = HEALTHY PEOPLE
- Need to roll out coordinated 'road-shows' (e.g. CSIRO, BOM, VCCCAR) in local communities with targeted information on climate change.
- To get feedback on local observations and local adaptive measures to date.
- To spread the word about what works in local communities that might be of benefit to others (as outlined in earlier notes).

Partner Universities

Project Sponsor