

# Climate Ready Lismore

Stakeholder Consultation Report







**Lismore City Council acknowledges the Widjabul/  
Wia-bal people of the Bundjalung nation, traditional  
owners of the land on which we work, live and play.  
We acknowledge their continuing connection to the  
land, sea and community. We pay our respects to the  
Widjabul/Wia-bal people, their culture, their elders and  
community leaders past, present and emerging.**

**\*This report may contain culturally sensitive content, including images and  
names of deceased persons of Aboriginal or Torres Strait ancestry.**

*Nimbin Rocks, Night into Day.*







## Why?

Climate change has already begun to impact us here on Widjabul Wia-bul Country. With projected changes of increased heat, fire risk and changes to rainfall patterns, we need to act now as a community to prepare ourselves and ensure we can continue to live, survive, and thrive in Lismore as a safe, inclusive and connected community. [Find out more on climate change in the North Coast.](#)

# Introduction

## Purpose of this report

**Lismore City Council (LCC) is committed to preparing a community plan that enables individual and collective climate change adaptation. Throughout 2024, Lismore City Council and Jagun Alliance will co-design the Climate Ready Lismore Plan with the intention of integrating western and Indigenous science. Jagun Alliance is an Aboriginal owned and directed not-for-profit organisation that works to improve land management and build resilience back into Jagun (country) by developing partnerships with local First Nations communities, government organisations, private landholders and the wider community.**

To understand how the community could and wants to take adaptive action, community members and subject experts were engaged in a series of conversations across the Local Government Area (LGA). Between July and November 2023 LCC and Jagun Alliance attended local events, community group meetings, schools and hosted workshops to

gain a range of ideas and feedback to prepare a Climate Ready Lismore Plan.

This document encapsulates the feedback received from the community on the concerns they have for climate change impacts and the actions they think could contribute to our collective adaptation efforts.

Stakeholder organisations that provided feedback are listed in Appendix 1.

The purpose of this document is to summarise and share what we heard. This document makes no commitments, rather it provides a record of community values and provides scope for forthcoming development of the Climate Ready Lismore Plan.

If you have additional ideas, priorities or concerns you want to share, please contact the Strategic Planning team: [council@lismore.nsw.gov.au](mailto:council@lismore.nsw.gov.au)

Community feedback on the draft Plan will be sought later in 2024.

*Year 6 Living School students involved in 'The World's Most Sustainable City' project present their model for the future of Lismore to Lismore City Council staff (Note – these students have since presented their project at a United Nations event in Sydney!).*



# Acknowledgements

**Thank you to every single person and group who took the time to share their thoughts, insights, wisdom and expertise with us.**

Thank you to AdaptNSW for sharing climate projection data and knowledge with the community.

Thank you to Carmen Stewart from It Takes a Town for holding space for our community to come together and have constructive conversations.

To stay informed on how the Climate Ready Lismore Plan evolves, see the Climate Change webpages on the Lismore City Council website and/or subscribe to Council's Climate Change mailing list.

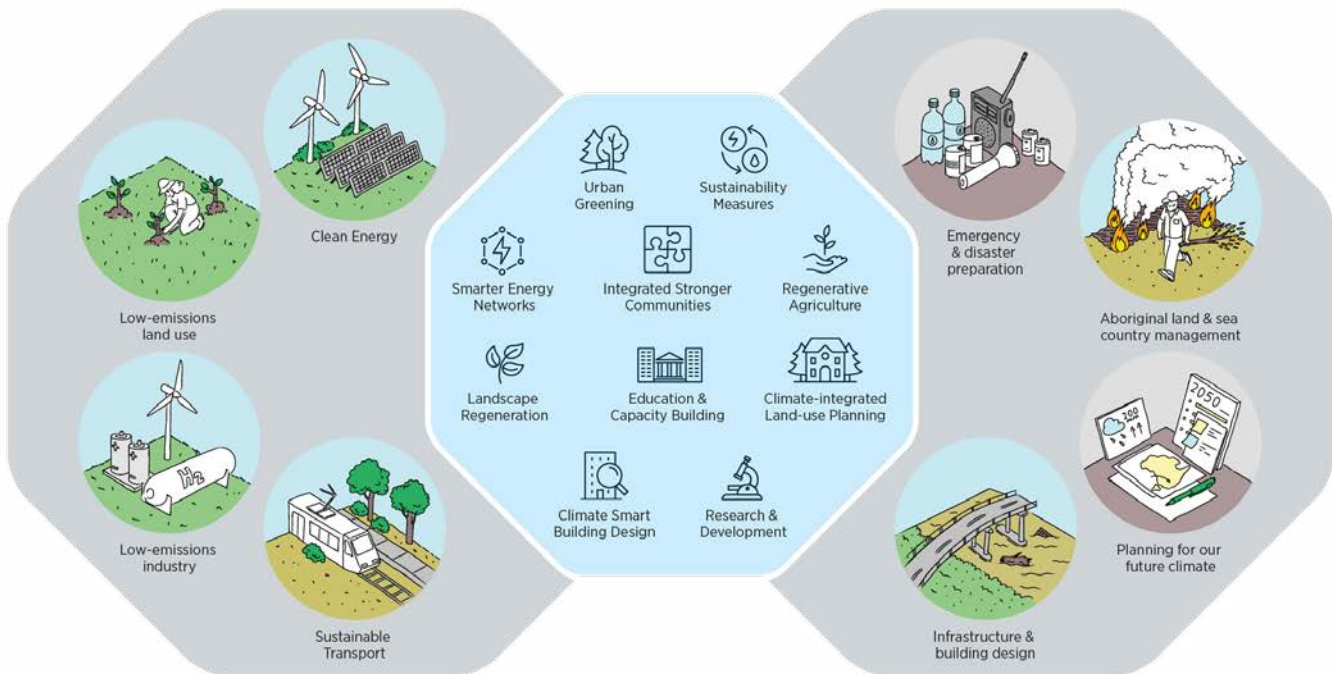


Photo reference: Adapt NSW



## Climate Change Terminology

In simple terms, climate adaptation speaks to a range of actions that will help us continue to live in a world where the climate patterns have changed. This is different to climate change mitigation which categorises actions that aim to prevent the climate from changing (primarily through reducing our greenhouse gas emissions). Of course, some actions within an adaptation plan are likely to contribute to both adaptation and mitigation, which is excellent!





# Definitions

**Adaptation:** Taking action to prepare for and adjust to the current and projected impacts of climate change.

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**Climate-anxiety:** Distress related to worries about the effects of climate change and its impacts on the environment and human existence. It can also be referred to as eco-anxiety or pre-traumatic stress.

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**Just Adaptation:** Adaptation that is inclusive of, and responsive to, diverse communities of place, communities of identity, and communities of interest.

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**Lismore:** The whole Local Government Area of Lismore which includes the villages and surrounding areas. The Lismore LGA boundary can be viewed via Council's mapping software IntraMaps.

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**Maladaptation:** When an action results in conditions that are worse than those which the original strategies were trying to address. It is a process whereby people become even more likely to be negatively affected by climate change.

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**Mitigation:** Reducing the flow of heat-trapping greenhouse gases into the atmosphere. This involves reducing greenhouse gases.

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**Regenerative Adaptation:** Adjust to our changing climate in ways that contribute to the healing of individuals, our communities and Country.

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*Trinity Catholic College Geography students participating in a climate workshop*



## Key findings:

# 1. Connection – the social, cultural, emotional and mental health element of climate change and adaptation

**The desire for genuine and continuing connection was the most resounding request across all consultation events. Community members want to collaborate, support, learn and heal with one another and with Country on this journey of adaptation.**

The communities, and community spirit of Lismore in general, is often reported as the greatest strength and asset of the area, not only when speaking on climate change or disaster matters. The stakeholders identified the psychological/emotional burden of dealing with disaster is significant and that community spirit must be fostered and expanded to ensure genuinely successful and regenerative adaptation actions take place.

**Regenerative Adaptation: to adjust to our changing climate in ways that contribute to the healing of individuals, our communities and Country.**



To adapt to climate change, stakeholders were clear that time and investment should be directed towards building social capital and social infrastructure, including increasing understanding of, and respect for, Indigenous knowledge and looking after mental and emotional health, individually and collectively.

Climate change and disaster events can degrade social fabrics and impact community mental health. However there is evidence that social capital-raising activities can successfully build resilience in communities and contribute to combatting climate-anxiety. Research found that communities in rural NSW perceive an increased resilience of mental health and well-being through community action including *“Community focused climate action, including inclusive and democratic resilience and adaptation planning”*<sup>1</sup>. Regeneratively and collectively addressing climate change can therefore not only provide physical benefits (risk reduction) and increase individual action but also positively affects emotional/psychological well-being at a collective level.

It is evident across the LGA that the Lismore community is capable, passionate and has a diversity of expertise that make them best placed to drive and lead a range of adaptation actions. The stakeholder engagement period enabled Lismore City Council to listen and learn about existing community projects as well as key challenges and barriers the community face when addressing climate change.

The forthcoming Climate Ready Lismore Plan will identify ways to extend, expand, support and value-add to these existing initiatives so that the community aren't carrying this burden alone. A key aim of the next steps will be to mobilise social, emotional and cultural healing and learning.

<sup>1</sup> Longman, Braddon, Verlie et al., (2023) 'Building Resilience to the mental health impacts of climate change in rural Australia', *The Journal of Climate Change and Health*





## 2. Every Action Counts

**Complex challenges require a complexity of actions. The climate is changing and projected to change into the future, with impacts both directly and indirectly affecting almost all elements of our lives. To address this, stakeholders called for a myriad of intervention actions at a range of scales, addressing a range of locations, community needs and local systems - each one contributing in its own way to a collective effort that enables us to sustain ourselves into the future.**

Stakeholders highlighted expectations for the Climate Ready Lismore Plan to include a diversity of actions assigned to a range of stakeholders in the community, from the individual to government. It was identified that the Climate Ready Lismore Plan could unify and coordinate these range of actions, including those that have already started in the community.

Stakeholders suggested we must be ready to introduce adaptive actions as opportunities arise and be flexible in our approaches to ensure we adapt efficiently and effectively. The process itself of creating the Climate Ready Lismore Plan should provide opportunities for inclusion and healing, and be a dynamic ongoing Plan, rather than a plan that sits on the shelf.

In addition to the negative impacts of the known projections, stakeholders identified that the adaptation process provided opportunities for positive societal changes and opportunities for new economies, learnings and industries.

Lismore City Council itself has a range of roles in which it can utilise to enable regenerative adaptation in Lismore, including:

- Advocacy
- Leadership
- Partnership
- Mobiliser/ Enabler
- Educator/ distributor of information
- Supporter
- Funder
- Administrator
- Project delivery



“Never doubt that a small group of thoughtful and committed citizens can change the world; indeed, it is the only thing that ever has”

– Margaret Mead, American anthropologist



### 3. We are ready to act, justly

**Climate change modelling is complex and evolving, with many variables and assumptions. There is widespread and consistent concern of the impacts that climate change is already bringing across the Lismore landscapes and communities. While climate modelling continues to improve and projections become more refined, there is consensus about the general changes of increased temperatures, more heatwaves and changing rainfall patterns.**

Lismore already experiences heatwaves and floods and the increasing risks of these in the future could result in serious impacts. There is adequate evidence and consistency in the climate projections to act now. We must use our strengths (community spirit) for good and collaborate for positive change.

Stakeholders accepted the use of AdaptNSW modelling as the source of climate projections for the purposes of developing the Climate Ready Lismore Plan. AdaptNSW have [projected climate changes for the NSW North Coast](#) and their work includes great detail on how climate change is affecting our environment, society and economy.

The social learning taking place about how climate change is being addressed is that justice and equity must be considered in all responses. The stakeholders highlighted that the community is ready for action now as well as the need for *just adaptation*, requiring all actions to be reviewed through a filter of social, economic, environmental and cultural justices.

Stakeholders identified that in taking and endorsing action, the Climate Ready Lismore Plan must provide a just transition to adapted living – ensuring that actions and changes provide equity to those in Lismore who are predisposed or prone to social marginalisation and does not cause *maladaptation*. This includes those without the capacity to protect themselves against climate change and disaster due to the historical and current systems of oppression and marginalisation – which have produced and continue to sustain inequality.

As recognised in the 2022 Intergovernmental Panel on Climate Change (IPCC) report “*vulnerability [to climate change] is exacerbated by inequity and marginalisation linked to e.g. gender, ethnicity, low incomes, informal settlements, disability, age, and historical and ongoing patterns of inequity such as colonialism, especially for many Indigenous Peoples and local communities.*”<sup>2</sup>

To employ a just approach, climate adaptation actions therefore must address the underlying factors that continue to marginalise people and seek to address these factors<sup>3</sup>. Just adaptation, focusing on equity and inclusivity with a rights-based approach, will enhance adaptation outcomes for everyone.

#### The four main changes for Lismore’s climate are projected to be:



Increased number of hot days (over 35°) + decreased number of cold nights (below 2°)



Increased rainfall in autumn and spring



Increase in severe fire weather risk in summer and spring



Decreased rainfall in winter

<sup>2</sup> IPCC, 2023: Summary for Policymakers. In: Climate Change 2023: Synthesis Report. Contribution of Working Groups I, II and III to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change [Core Writing Team, H. Lee and J. Romero (eds.)]. IPCC, Geneva, Switzerland, pp. 1-34

<sup>3</sup> Future Earth Australia (2022). *A National Strategy for Just Adaptation*. Australian Academy of Science, Canberra, Australia.

# Our climate concerns and adaptation actions: a starting point

The following pages set out the concerns and the suggested actions heard from the stakeholders. These are not conclusive, rather they provide a starting point for the Climate Ready Lismore Plan.

## Areas of discussion

Most stakeholder input was received via two externally facilitated half-day workshops. These workshops framed conversations around six key systems in Lismore. Figure 1 provides a high-level indication of the focus of conversations across the systems and the four climate change projections. The size of the bubble roughly represents the time and energy spent discussing that particular projection and system.

















Figure 1 - Discussion Focus


























# Summarised concerns and ideas for adaptive actions






This section collates the concerns and ideas for adaptation (mini solutions) that were raised by the stakeholders. Each row represents a particular or grouped concern, with the relevant climate projection identified in the final column. The table collates responses heard at the workshops and has not been analysed or further developed into proposed actions.

#	Impact/ Concern	Suggested Adaptation Actions	Applicable Projections
			<p><b>KEY</b></p> <div style="display: flex; justify-content: space-around; align-items: flex-start;"> <div style="text-align: center;">  <p>Increased number of hot days (over 35°) + decreased number of cold nights (below 2°)</p> </div> <div style="text-align: center;">  <p>Increased rainfall in autumn and spring</p> </div> <div style="text-align: center;">  <p>Increase in severe fire weather risk in summer and spring</p> </div> <div style="text-align: center;">  <p>Decreased rainfall in winter</p> </div> </div>
1	Increased climate anxiety at an individual and collective level. This includes damage to social infrastructure from compounding mental health impacts and relocating households and businesses.	<ul style="list-style-type: none"> <li>• Improve mental health resilience, for example psychological preparedness and mental health first aid</li> <li>• Increase and communicate opportunities for individual and collective action to assist in empowerment and connection, to reduce climate anxiety</li> <li>• Include community in climate change planning</li> <li>• Increase trauma preparedness and provide support for re-triggering of trauma responses</li> <li>• Include specific programs for some communities such as youth, carers, volunteers and service providers</li> </ul>	   
2	Lack of clarity around active agencies and organisations leads to distrust and limited action amongst the community and contributed to climate anxiety	<ul style="list-style-type: none"> <li>• Create a document or webpage that outlines the roles of key NSW Government agencies working in disaster and climate change sectors, including where they overlap</li> <li>• Provide climate related information pre-season to raise awareness and enable collaboration and communication</li> <li>• Create opportunities for community to be involved in climate change conversations and decisions</li> </ul>	   
3	Certain communities within the LGA are disproportionately impacted by climate change	<ul style="list-style-type: none"> <li>• Set the Plan on the premise and framework of 'Just Adaptation', ensuring voices of those most affected are heard and included</li> </ul>	   








#	Impact/ Concern	Suggested Adaptation Actions	Applicable Projections
4	Damage to physical infrastructure including land, homes, businesses, sporting and cultural buildings, roads, telecommunication networks, and assets such as sewer treatment plants and the like	<ul style="list-style-type: none"> <li>• Provide resources (knowledge and funding) to make buildings, community infrastructure and neighbourhoods more climate resilient, including regionally specific guidelines and building standards based upon local rainfall and climatic data for new and retrofitting buildings and for new housing developments</li> <li>• Provide resources (knowledge and funding) to make buildings, community infrastructure and neighbourhoods more fire resilient</li> <li>• Mitigate and protect critical infrastructure; improve stormwater drainage systems and review road-building practices and materials</li> <li>• Housing and building innovation with passive cooling</li> <li>• Build smaller houses with reduced DA fees, rates and other incentives</li> <li>• Have a landslip safe spot on specific properties; landslip alert and financial support for mitigation and restoration</li> <li>• Build new developments to catch 100% of runoff and increase water tank requirements, as well as investigate distribution opportunities</li> <li>• Design all weather disaster-resilient sporting districts and facilities, eg GSAC is important as an indoor facility. Add more synthetic hockey, soccer and other sporting fields and pitches</li> </ul>	   
5	Disruption to food systems through loss of crops, damage to road networks and supply chains or other indirect impacts. Lost access to food and fresh food can then compound mental health impacts and increase the cost of food for the community	<ul style="list-style-type: none"> <li>• Support local food growing on individual and collective levels, at small and large scales, including community gardening opportunities in flood-free locations</li> <li>• Consider the food system as a whole, everything from farm to table and include food access and systems thinking in disaster management plans. Support dignified and respectful food relief</li> <li>• Diversify and decentralise food storage and develop place-based solutions, including mobile cold rooms to prevent food spoilage and ensure isolated residents have access to fresh food</li> <li>• Incentivise local food production and systems, including improving accessibility and affordability of farmers markets</li> <li>• Consider Indigenous food sources and industries, and changes in cultural food practices</li> <li>• Measure LGA food security through a household food security survey</li> <li>• Establish and maintain networks in food systems</li> <li>• Provide knowledge and funding to support regenerative agriculture practices</li> </ul>	   



#	Impact/ Concern	Suggested Adaptation Actions	Applicable Projections
6	Volunteer, emergency service and service provider and community group burnout from compounding and cascading events and from personal and professional disaster impact	<ul style="list-style-type: none"> <li>Invest in workforce planning, an integrated workforce plan could include a regional system of staggering staff and volunteers according to demand</li> <li>Mandate rest</li> <li>Integrate workforce planning with housing strategies</li> <li>Co-locate services to foster coordination and collaboration, drawing upon national systems with local branches where possible</li> <li>Implement worker action plans for mental health</li> <li>Provide funding so emergency service workers can be paid and treat service providers like critical infrastructure</li> <li>Foster community support networks and build relationships between villages and towns in the Northern Rivers</li> </ul>	   
7	Administrative burden on self-organising community groups from complexity around governance and grant systems	<ul style="list-style-type: none"> <li>Recognise and support self-driven and self-organising community groups</li> <li>Understand their needs and challenges through communication</li> <li>Provide administrative support to them including assistance accessing grants, or change the grant system to foster ease and remove competitiveness within communities</li> <li>Provide brokerage for community resilience groups</li> <li>Create, maintain and strengthen networks of people actively working or interested in climate change</li> </ul>	   
8	Insurance unavailability	<ul style="list-style-type: none"> <li>Lobby and advocate</li> <li>Contribute to research and case-study development around new insurance products, such as the recognition of risk-reducing building retrofits that enable reduced premiums</li> </ul>	   
9	Health impacts for outdoor workers	<ul style="list-style-type: none"> <li>Work during cooler hours</li> <li>Provide worker action plans for health</li> <li>Be aware of indicators of heat impacts</li> </ul>	







#	Impact/ Concern	Suggested Adaptation Actions	Applicable Projections
10	Changes in primary production; crop suitability and viability, change in harvest window, change in soil health, impact on animal welfare reducing milk and beef production, loss of agricultural income, loss of interest and uptake in primary production as a career, change in pests and diseases and other related impacts on the agricultural industry	<ul style="list-style-type: none"> <li>• Research to develop more resilient crops or varieties suited to a hotter climate and adapt growing conditions (eg use of greenhouses). Research improved and diverse pest management</li> <li>• Increase awareness of information and enhance resources (such as Local Land Services) available to primary producers around climate risk</li> <li>• Work with existing farmer networks and peak bodies to ensure communication and access to data is industry and/ or peer-led, user-centric and supports the adoption of sustainable land practices</li> <li>• Provide support for knowledge to diversify crops and farming approaches eg regenerative agriculture, permaculture, agri-ecology, greenhouses, Indigenous knowledge and native foods</li> <li>• Support regional farmers through local procurement policy that facilitates healthy local food access for communities and support regenerative farming practices</li> <li>• Provide an agricultural extension officer to support landowners living on productive agricultural land with farm leasing, small scale growing (market gardens etc) and regenerative agriculture transitions</li> <li>• Manage runoff from land under agricultural production and apply best practice and next practice on riparian zones, including fencing off and managing animal access to water</li> <li>• Improve soil management to increase soil permeability</li> <li>• Encourage business diversity (training, new biz pathways, upskilling)</li> <li>• Diversify pasture species to tolerate both increased and decreased rainfall conditions</li> <li>• Investigate AI solutions (Ag Tech)</li> <li>• Provide timely and tailored support (without delay/red tape) and provide place-based, community led, localised support e.g. Resilient Lismore, for food and agriculture</li> </ul>	   
11	Increased use and cost of electricity, increased potential for blackouts, increased fuel poverty and inequity of electricity/ air conditioning/ solar access and positive transition opportunity for electrification through renewable energy uptake	<ul style="list-style-type: none"> <li>• Support to incentivise energy efficiency</li> <li>• Incentivise off-grid and decentralised energy solutions</li> <li>• Fund air-conditioning for those in need</li> <li>• Educate industry on passive cooling, housing and neighbourhood design, implement development controls to support design solutions, including light roofs</li> <li>• Create cool refuges, particularly in Council parks and buildings, including making Council pools free of charge during heatwaves</li> <li>• Provide more shade and plant more trees</li> <li>• Expand and purposely deliver areas around the river as a cultural precinct with walking and learning opportunities. Will provide a cool space in the evenings.</li> <li>• Value cultural institutions (libraires, museums, galleries etc) as vital places for community connection and escape from heat</li> </ul>	





#	Impact/ Concern	Suggested Adaptation Actions	Applicable Projections
12	Changes in shopping and recreational habits due to outdoor heat, impacting trade, the local economy and social capital	<ul style="list-style-type: none"> <li>• Increase canopy cover in CBD and main streets, utilise species that are climate resilient and suit the area</li> <li>• Include recycled water filters and water-cooling elements into built environment design and retrofits</li> <li>• Provide seating in shaded areas</li> <li>• Support air conditioning uptake in CBD and main street shops, particularly areas that provide opportunities for social connection</li> <li>• Permit villages to increase density, allowing residents to age in place with a more diverse community and amenity</li> <li>• Construct parklets - consider converting specific existing buildings to green space</li> <li>• Change of working practices/hours to avoid middle of the day</li> <li>• Nature-based solutions of green towns with behaviour change activities</li> </ul>	
13	Potential net loss of population due to people relocating or not moving into the area because of climate	<ul style="list-style-type: none"> <li>• Develop and implement a series of strategic plans to create suitable housing and jobs to attract and retain population.</li> </ul>	   
14	Increased demand on electricity grid - particularly health care which may be under designed to meet projected use	<ul style="list-style-type: none"> <li>• Discuss with NSW Health their projections and work with Council to identify new sites, including potential regional hubs; retain Nimbin hospital and expand services to include telehealth, stand-alone power etc</li> <li>• Incorporate short and long term climate and demographic projections into strategies (including Development Control Plan (DCP), strategic expansion etc)</li> </ul>	
15	Indigenous elders may be unable to have presence on country due to heat. This disconnects elders, reduces cultural activity and health and leads to a loss of stories and loss of science. Leads to more gatherings being held indoors which is different to connecting on Country.	<ul style="list-style-type: none"> <li>• Create a calendar of accessibility to enable elders to visit, connect to Country</li> <li>• Create indoor spaces that have an element of environment, culture and Country</li> <li>• Building and understanding design, sustainability, green developments, trees, regenerative solar power for air-conditioning</li> <li>• Expand and purposely deliver areas around the river as a cultural precinct with walking and learning opportunities, this will provide a cool space in the evenings.</li> <li>• Provide more collective spaces with shade for accessing cool areas and social connection</li> </ul>	

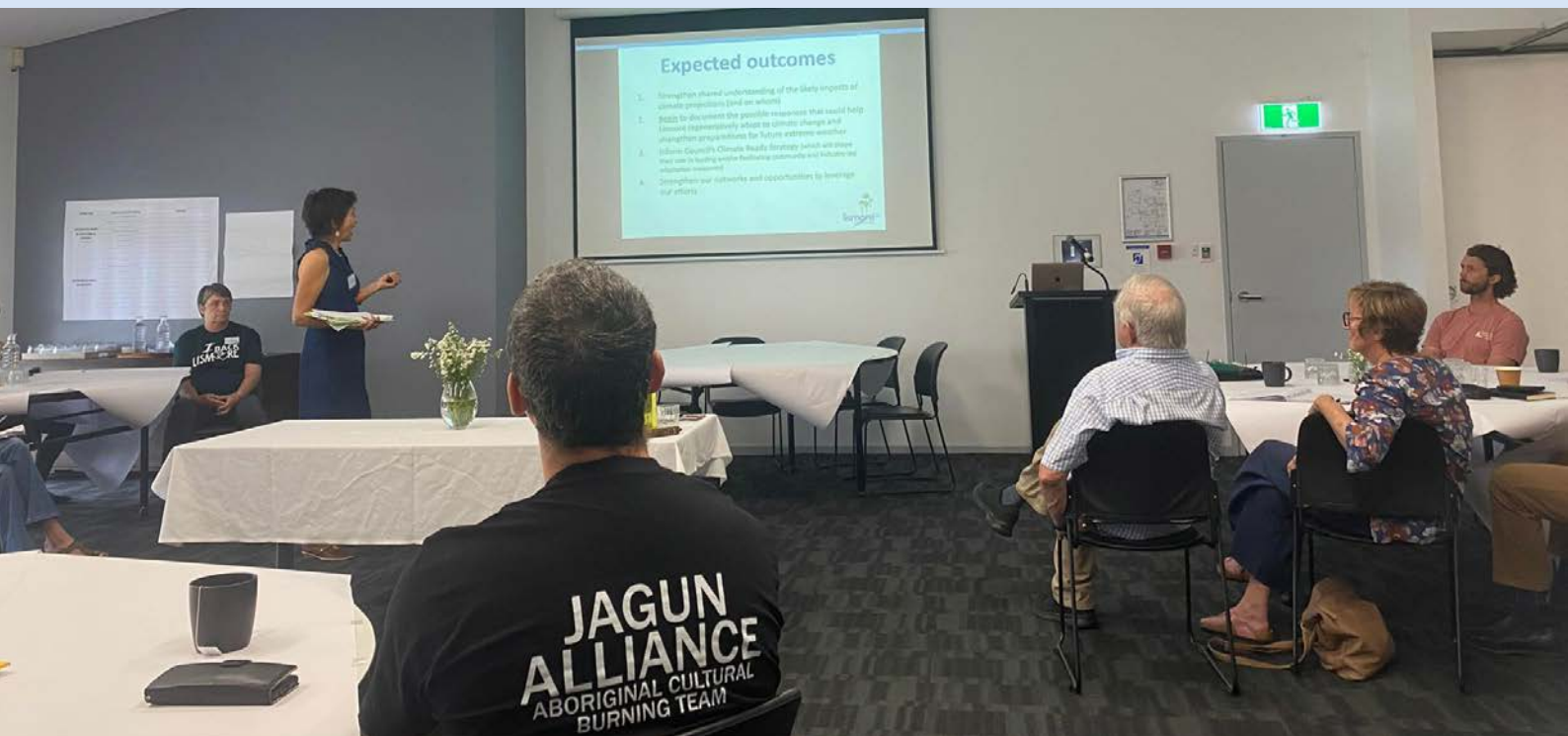
#	Impact/ Concern	Suggested Adaptation Actions	Applicable Projections
16	Increase in people accessing local water holes – limited knowledge about cultural significance of these sites – disconnection for elders, damage, injury	<ul style="list-style-type: none"> <li>• Fund indigenous rangers</li> <li>• Educate landholders and the wider community</li> <li>• Create awareness about the significance of these sites. Build knowledge including through the installation of signage with QR codes and dual language</li> <li>• Improve waste management at cultural sites and waterholes</li> </ul>	
17	Loss of climate-sensitive ecosystems, forest destruction, decreased water availability in rivers and lakes, loss of biodiversity, isolated habitat areas leading to reduced genetic resilience of fragmented species, human health impacts and death of wildlife	<ul style="list-style-type: none"> <li>• Incorporate whole of landscape planning to protect endangered ecological communities</li> <li>• Restore riparian zones and regenerate the flood plain</li> <li>• Incorporate traditional land management in changed ecotypes</li> <li>• Plant more trees and retain existing habitat. Provide incentives to landholders to do this</li> <li>• Improve species selection in planting to support environmental structure</li> <li>• Increase connectivity and health of ecosystems (control weeds and pests)</li> <li>• Implement proper Indigenous cultural burning practices to reduce impact of fires on biodiversity</li> <li>• Employ more extension officers to provide guidance and knowledge building with landholders on landscape-scale ecological targets and the implications of poor planning</li> <li>• Improve access to firegrounds post fire</li> <li>• Increase the number of trained volunteers</li> <li>• Improve coordination between wildlife organisations</li> <li>• Construct and install more surrogate nest boxes</li> <li>• Understand the language of wildlife and culturally active landscape. Read behaviour of different animals, learn, listen and watch for the elements/signs from animals and nature</li> <li>• Work with multiple agencies and landholders to plan and fund mosaic of wildlife corridors across land tenure</li> <li>• Fund trials and research to test methodologies around landscape resilience. Collaborate with universities and commercial tech specialists</li> <li>• Lobby Australian and state governments to revalue how they fund work with private land holders – lobby to promote mutual benefits of green engineering for public benefit as well as improved production – build resilience that have mutual benefit</li> <li>• Understand high risk, high fauna density priority areas; understanding what makes site high risk for landslips. Is there a species that mediates the risk?</li> </ul>	   



#	Impact/ Concern	Suggested Adaptation Actions	Applicable Projections
18	Decreased plant productivity, which in turn, affects herbivores that rely on plants for food. This can create food shortages for herbivores and the predators that depend on them. Subsequently, good conflicts between species occur which can affect the distribution and behaviour of animals	<ul style="list-style-type: none"> <li>Habitat connectivity to allow movement and migration of species</li> <li>Implement land-management actions to improve soil health so that it holds more water and is more biodiverse</li> <li>Council levy for the environment – could be state or federal tax</li> <li>See also actions in item #17</li> </ul>	
19	Wildfires can degrade air quality, affecting human and animal health	<ul style="list-style-type: none"> <li>Encourage more cool burns to help reduce large scale wildfires, invest in cultural knowledge about burning practices, invest in PEOPLE ON THE GROUND to implement cool cultural and ecological burn plans</li> <li>Understand where fire is meant to be in the natural environment, what is good fire and what is bad fire</li> </ul>	
20	Preventative burning seasons are getting shorter and current bureaucratic process is increasing fire risk	<ul style="list-style-type: none"> <li>Develop easier approval pathways for cool burns</li> <li>Increase the input from First Nations</li> <li>Reduce sole reliance on RFS and change the policy to enable cultural burning practices into the RFS planning</li> <li>Improve leadership and increase knowledge sharing and education, including cultural knowledge sharing</li> <li>Create insurance policies for cultural burning</li> <li>Government should enable Indigenous fire and land management, but not manage it, with only Indigenous people conducting cultural burning</li> <li>Build the capacity of Indigenous communities to enable the management and handover of the NPWS estate</li> </ul>	
21	Rural or smaller communities become isolated	<ul style="list-style-type: none"> <li>Enable place-based delivery of funding for each 'smaller' community</li> <li>Provide education about evacuation routes during fires, including local knowledge of old fire trails</li> <li>Encourage housing 'defend itself' while supporting residents evacuate early in bushfire events</li> </ul>	 
22	Waterways and soils become contaminated from flooding	<ul style="list-style-type: none"> <li>Employ an extension officer at Council</li> <li>Encourage and implement new and different forms of land management</li> <li>Apply best practice and next practice in riparian zones, including fencing off and managing animal access to water</li> <li>Manage runoff from land under agricultural production</li> <li>Improve soil management to increase soil permeability</li> <li>Strategic planning for erosion management – permissible land uses should consider slope, and controls should require revegetation – vegetation management plans</li> </ul>	

#	Impact/ Concern	Suggested Adaptation Actions	Applicable Projections
23	More intense rainfall events	<ul style="list-style-type: none"> <li>• Slow down the flow with strategic wetland</li> <li>• Better integration of water management structures in urban environments</li> <li>• Use natural sequence farming (contouring &amp; swales) to slow down the flow of water and keep soil onsite</li> <li>• Improve flood warning systems for rural areas and small villages, which in turn provide early warning systems for those downstream</li> <li>• Centralised management of weather and climate reporting</li> <li>• Incorporate the whole LGA into flood risk planning</li> </ul>	
24	<p>Rivers and wetlands dry up leading to lost source of drinking water, food, ceremony, traditional practices and healing.</p> <p>Increased stress on rural residents from the increased need and cost of water imports</p>	<ul style="list-style-type: none"> <li>• Understand cultural water lore</li> <li>• Increase personal responsibility for water usage</li> <li>• Rehydrate landscapes, nurture through culture; e.g. series of leaking dams and ponds and promote small-scale rehydration works on private land to mitigate moisture loss in soils and hold more water on properties</li> <li>• Restore riparian zones and increase green space (canopy cover) over water courses, and nature based cultural practices</li> <li>• Diversify water sources and storage, including more households with water tanks (subsidies), mobile desalination plants, recycling of greywater for potable re-use, and incentives for increased water efficiency</li> <li>• Increase capture of water from everything - roads, buildings, gutters, dry wells, assets</li> </ul>	

Stakeholder workshop



# Appendix 1 – Stakeholders contributing to this report

Organisations that contributed at workshops or through individual conversations include:

A Way Forward

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Bushfire Risk

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Byron Shire Council

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Department of Primary Industries

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Disaster Relief Australia

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Department of Environment

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Friends of the Koala

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Griffith University

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Healthy North Coast

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It Takes a Town

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Living Lab Northern Rivers

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Nimbin Neighbourhood Centre

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NSW Health

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Plan C

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Rainforest Publishing

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Regional Development Australia

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Resilient Lismore

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Revive the Northern Rivers

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Richmond Landcare

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Richmond River Keeper

Southern Cross University  
– across multiple schools

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The Casino Food Co-op

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The Channon Resilience Incorporated

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The Living School

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The Northern Rivers Community Foundation

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The Reconstruction Authority

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The Red Cross

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The SES

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The University Centre for Rural Health

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Tweed Shire Council

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University of the Third Age

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University of Technology Sydney

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Whian Whian Landcare

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Year 6 students at the Living School

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Year 7 Human Society and its Environment (HSIE) students at Lismore High

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Year 10 Geography students at Trinity Catholic College

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*And the dedicated individuals who came to workshops in their own time*

