



INDEPENDENT ASSESSMENT OF SOCIAL
AND ECONOMIC CONDITIONS IN THE BASIN

Social and Economic Conditions in Murray-Darling Basin Communities

Progress Report: Listening to Community Voices

FROM THE PANEL FOR THE INDEPENDENT ASSESSMENT OF SOCIAL AND ECONOMIC
CONDITIONS IN THE MURRAY-DARLING BASIN

6 DECEMBER 2019

On behalf The Hon. David Littleproud MP,
Australian Government
Minister for Water Resources, Drought, Rural Finance,
Natural Disaster and Emergency Management





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Overview

What the Panel heard – the lived experience

This progress report summarises what the Panel for the Independent Assessment of Social and Economic Conditions in the Murray-Darling Basin has heard from Basin communities about the social and economic conditions they are facing.

During this ‘lived experience’ stage of our investigation, we spoke to and heard from hundreds of people across the Basin (and some from outside the Basin) – people of all ages and from many walks of life.

The people we met were passionate and committed, proud of their rural and regional heritage and protective of their communities. However some, particularly in parts of Southern NSW, Northern Victoria, and smaller communities in the Northern Basin, were highly stressed and deeply worried about what the future holds. We heard that many of these people and their communities are under immense pressure, and some consider themselves and their communities to be in crisis. We heard from people in those areas who said their communities are being damaged, dismantled, and even potentially destroyed. Many people in smaller Northern Basin communities are observing rapid population decline and in parts of the Southern Basin, social cohesion is felt to be crumbling.

The impact of the drought, coupled with the accelerated decline in water availability, is pushing some communities to the brink. Their falling levels of wellbeing and rising despair are resulting in serious mental health problems – hopelessness, anxiety, rage and struggles to imagine a positive future. The Panel has deep concern for those in these communities who are feeling helpless and who feel that their values, heritage and sense of place are being eroded. Resilience and a strong sense of pride in community can be juxtaposed against a feeling of not being able to compete and participate in today’s world.

Some communities in the Northern Basin are running out of water. They feel that the likelihood of extreme scarcity events for urban critical human water needs could have been anticipated, and that governments have not carried out adequate long-term planning of water infrastructure and supply requirements.

Reduction in the consumptive pool of water under the Basin Plan has amplified the impact of drought and heightened conflicts in values in and between communities. Our discussions indicate that aspects of water reform, together with water recovery for the environment, have caused social and economic harm in some regions, and for some commodity groups.

The Panel heard that some regions and commodity groups have benefitted from aspects of water reform, but these benefits, as with the negative impacts, are unevenly distributed across the Basin. Some people in irrigation-dependent communities across the Basin, including those centred on dairy and rice in parts of Northern Victoria and Southern NSW respectively, told us they are particularly vulnerable to the combined impacts of further water recovery and drought. Where negative outcomes have been observed, the Panel heard that many people in these communities feel the impact has been largely unmanaged by governments, and feel a sense of abandonment.

The causes of vulnerability are complex and multifaceted, but while it is difficult to separate the impact of water reform and water recovery from that of drought, it is clear that when extended drought impacts at the same time as the downside of water reform, some outcomes such as the exit of water from a district can be rapid and significant. Governments, communities, industries and individual businesses can all struggle to deal with the pace of the quickly unfolding changes.



The at times fragmented nature of government responsibilities, and the complexity and lack of transparency of water policy, allocation frameworks, environmental watering, water markets and decision-making across governments means that some communities are losing confidence in their capacity to influence fair and equitable decision-making.

This concern is amplified because the impacts of changes extend beyond farming enterprises and their supporting industries and services – they are felt by town businesses and communities. The Panel heard that there are hotspots across the Basin, particularly in irrigation-dependent communities in the Northern Basin, and parts of Northern Victoria and Southern NSW, which are more vulnerable to the combined impacts of water reform and drought. First Nation communities are impacted directly by lack of access to water to provide for livelihoods, Cultural needs and economic development.

It is no surprise that these negatively affected communities struggling with this rate of change also have significantly reduced confidence in the future. Many people from these communities told us that once the drought breaks, they feel they will be unable to return to a ‘business as usual’ mindset or approach. This highlights challenges some people face in accepting the new reality of a scarcer water future. Unfortunately, when forward planning is now most needed, for some, the risk of further reductions in the remaining consumptive pool is stalling their business planning such as business/farm investment, levels of on-farm landcare, management and husbandry, and succession planning. This ‘decision paralysis’ is not limited to the agricultural sector. Many of these people are questioning their future as residents or business owners in the Basin.

Many people, particularly in parts of the Southern Basin, expressed frustration with the agreements, rules and administration of water, and believe they need to be reviewed and overhauled in line with water reform. Some even consider that the Murray-Darling Basin Agreement is out of step with current water reform, climate trends, and water and land use.

We heard that issues are arising around the volume of water needed for perennial plantings, and the risk that there will not be enough water to sustain permanent plantings or to supply water to dairy for critical fodder production in very dry years. In years of high water allocation there is an important role for high-value annual crops including rice and cotton.

We have also heard of positive stories and opportunities emerging. There are farm businesses, processors and communities that are finding ways to get on the front foot and prepare for the future. Some industries are expanding, some niche industries are doing well, and economic benefits are flowing to some sectors and regions – particularly in some of the Basin’s larger towns, where irrigation opportunities have expanded due to the purchase of water and where government has invested in on-farm and off-farm irrigation infrastructure upgrades.

There are also benefits that people have reported in the form of ecosystem services that have been enabled through water recovery for the environment and the contribution this has made to the health of the river system.

Emerging themes

In this progress report, we have identified themes emerging from our initial consultations, and we explore these in more detail, referring to what people told us in meetings, through the survey and in submissions.

Engaging with communities

Engaging with communities across the Basin is at the heart of this assessment, and it was an important part of identifying underlying causes and drivers of the social and economic conditions



across the Basin as communities deal with issues including drought, demographic change, commodity price changes and some of the most significant water reforms in Australia's history. More work is needed to continue our investigation. Our task now is to gather more data and synthesise all the available evidence to build an accurate and holistic understanding of social and economic conditions in the Murray-Darling Basin, based on qualitative and quantitative findings.

Our commitment

We are committed to honestly and independently representing the thoughts, feelings and experiences of those people who have communicated with us. We see this process as a critical opportunity to help shape the positive future of the people in our Basin communities. All Panel members continue to reflect on our observations so far, and we are committed to bringing about longer-term positive change for the communities of the Murray-Darling Basin.

Acknowledgement

We acknowledge that First Nations peoples are the traditional owners of the land and water, and pay respect to Elders past, present and future. We also recognise the unique, diverse and enduring Culture of First Nations peoples and the wisdom that comes from such a long connection and respect for Country that can inform today's decisions.

The seven-member panel for the Independent Assessment of Social and Economic Conditions in the Murray-Darling Basin has been appointed to assess the social and economic conditions affecting Basin communities, on behalf of The Hon. David Littleproud MP, Minister for Water Resources, Drought, Rural Finance, Natural Disaster and Emergency Management. The Panel members are Robbie Sefton (Chairperson), Andrew Kassebaum, David McKenzie, Dr Deborah Peterson, Michelle Ramsay, Bruce Simpson and Rene Woods.

The Panel's overall aim is to improve understanding of social and economic conditions in Basin communities, along with the underlying causes of those conditions, and help ensure communities are well positioned to move forward with a sense of purpose, hope and improving wellbeing. This Progress report represents an important step in the Panel's work, which is to report to the Minister what we have heard from Basin communities about their lived experiences of the social and economic conditions in the Basin.

We are indebted to the people who participated in this consultation and appreciate their generous contribution of time, ideas and insights.



Executive summary

This progress report summarises what the Panel for the Independent Assessment of Social and Economic Conditions in the Murray-Darling Basin has heard from Basin communities about their lived experience of the social and economic conditions in the Basin, through some 68 face-to-face meetings with over 750 people, 15 phone consultations, 111 written submissions and over 600 online survey responses between July and November 2019. This process has been largely qualitative, where we asked people in the Basin to share their experiences and perceptions.

This report is concerned with giving voice to community perceptions and views on the socio-economic conditions in the Basin. The Panel is conscious that while this report presents lived experiences, our conclusions need to be informed by data and evidence.

There is no one story for Basin communities – each region has different perceptions and realities, for good reasons. As we emphasised, lived experiences are often the end result of a complex interplay of factors – many are indirect and emerge over multiple seasons. We also recognise that negative outcomes for some can result from choices elsewhere that bring wealth and increased wellbeing to others, and vice versa. These are the realities of dynamic connected economies and societies that share resources. The Panel now has the important task of bringing greater understanding and insight to these dynamics.

In anticipation of this, the Panel has commissioned a range of socio-economic analysis and modelling to bring structure and further clarity to our next stage of deliberations. We will also be engaging further right through the process. These additional streams of work will add to our understanding and interpretation of what we have heard and what might need to be done going forward.

Themes arising from consultation

Theme One: Basin communities are feeling the effects of significant pressure

People living in Basin communities facing reduced water availability and drought are under immense pressure – some consider themselves and their communities to be in crisis and report that their physical and mental health and wellbeing are declining. We heard from many people whose confidence is low, resilience is poor, and anxiety is high.

Populations in some rural and regional towns are declining in response to falling employment opportunities, loss of business confidence and the rapid exit of farming families. While population decline has been a longer-term trend, many believe it is being caused by the impacts of water reform and now drought, driving more rapid population decline, particularly in Northern Basin communities.

People from First Nations communities told us they not only feel that their health and wellbeing is suffering, but also their identity and Culture – while they are also being marginalised and excluded from the benefits of water reform.

Services in some areas are deteriorating. Some smaller communities and some larger centres are struggling to sustain basic services and to attract and retain workers to fill vacant positions in health, welfare, policing, schools and the community sector. Education and health are areas of particular concern.

It should be noted that despite the struggles people spoke of, there were many who could see strengths and natural assets within their communities, who were proud of their proactive culture and spoke of self-determination being preferable by far to dependence on government support.



Theme Two: There are areas of optimism, growth and positive benefit

We also heard positive stories and opportunities emerging, and some submissions observed that water reform has provided net benefits to society overall. Some industries and businesses are expanding, some niche industries are doing well, and economic benefits are flowing to some sectors and regions – particularly in some of the Basin’s larger towns, where irrigation opportunities have expanded due to the purchase of water and where government has invested in on- and off-farm irrigation infrastructure upgrades. In many parts of the Basin (particularly the northern zone), social cohesion and unity were felt to be strengths.

Theme Three: The benefits and impacts of water reform are uneven

Water reform has benefitted some more than others. This has led to an increase in overall wealth but has also led to a transfer of wealth between regions. We heard a great deal of confusion and anger over water allocation outcomes arising from state water allocation and planning complexities. Those who have not gained from reform are more deeply feeling the pain associated with the current drought and other structural changes than would have been the case without water reform.

Theme Four: Reduction in the consumptive pool of water is exacerbating the effects of drought and climate change

Water reform is viewed by many people that we spoke with as exacerbating the worst of the impacts of drought, removing a buffer to drought and reducing the scope for post-drought recovery. Many believe these cumulative impacts will be worsened by future climate change.

Theme Five: There are fears for the security of water for critical human needs

A number of people expressed fear for their town water supplies and for the security of water for critical human needs, with flow-on impacts on amenity, health, wellbeing, tourism and investment. We heard from some townspeople that they feel let down by a lack of government planning for urban Critical Human Water Needs during extreme water scarcity, when the need for such planning has been evident for a long time.

Theme Six: Trust in governments, agencies and markets is at a low point

Many people we heard from are losing confidence in their capacity to influence fair and equitable decision-making. We heard that there is a crisis of confidence in the implementation of aspects of the Murray-Darling Basin Plan and felt there was an enormous chasm between many people we spoke to and government.

Theme Seven: Changes in water demand and availability are resulting in pronounced changes in land use, with consequences for other industries and regions

The demand for water to support perennial crops is significant and is driving the cost of water higher, particularly in drier times. Some farmers in traditional industries now struggle to compete for water, as do some farmers in some established irrigation districts where new enterprises are expanding the irrigation footprint.

Theme Eight: The benefits of environmental flows are not well understood or recognised

Some respondents expressed deep concern for the health of the Basin’s rivers, floodplains and wetlands, and felt that the environment was benefitting from the return of water to the environment. It was also clear that people do recognise the importance of environmental flows in maintaining a healthy environment. However many see environmental flows as lacking and some see management decisions during drought as out of step with their local communities and/or environmental needs. In addition, some people are concerned about the lack of focus on broader natural resource management.



Theme Nine: Lack of connecting infrastructure is further impeding economic development

Physical and digital connectivity through roads, transport and telecommunications were felt by many to be second-class. Lack of connecting infrastructure can be a significant impediment to liveability in rural and regional Australia, precision agriculture, and connectivity to markets and processing sites.

Theme Ten: Communication, transparency and data need to be improved

Data collection, scale, transparency and communication are seen by many people we spoke with as major problems. Understanding of the complexities of water reform, including the roles of different levels of government, is low. More accurate and granular data and indicators are needed for monitoring social and economic conditions generally, for directing government investment, and for dealing with issues related to gathering and using data on First Nation members of communities.

Theme Eleven: People living in rural and regional communities want real participation in decision-making

Many people expressed a desire for greater involvement and influence in decisions that impact them. Some participants are burnt out by years of consultation because they feel that their experiences and inputs have not been treated as important in shaping policy. Steps to involve communities in decision-making must ensure that people have a real say in the decisions that affect them.

Potential areas for action

The Panel has identified some preliminary directions for action. This is in no way a final set of recommendations, and nor are these the only ideas we will explore. These directions will be considered and developed in depth in our final report.

1. Help build confidence of Basin communities by robustly meeting minimum expectations of community support for any recovery options affecting the remaining consumptive pool. Now that the impacts of aspects of water reform and drought are demonstrating the elevated social and economic vulnerability of some Basin communities, it is critical that:

- The 605 GL of Sustainable Diversion Limit programs be delivered in partnership with affected communities. Earning community support for projects is crucial and options not supported by community should be given lowest preference. Should the suite of projects fall short of the 605 GL, more projects should be sought.
- Robust socio-economic neutrality criteria should be rigorously tested and applied.

2. Support development of a realistic vision for rural and regional communities in the Basin

- Develop a vision and strategy for the Basin (using regional planning and adjustment policies rather than water planning instruments) to clarify and work towards shared socio-economic and cultural goals in the Basin.
- Develop and implement new models for policy development and delivery, including future structural adjustment responses that have place-based approaches which genuinely involve local communities in decisions that affect their socio-economic outcomes.



3. Strengthen community engagement and leadership

- Develop better mechanisms to work in partnership with local communities to understand their concerns, co-develop potential responses, and better explain the benefits and costs of options being considered and how these will be distributed.
- Invest in local and regional leaders and leadership to drive community adaptation and resilience.
- Address deficiencies identified by First Nations communities related to current and future water planning, management and access arrangements.

4. Improve performance and communication of water policy and management

- Improve information and communication about current and agreed future water policy settings.
- Improve water policy and management implementation by building processes and requirements for greater collaboration and information sharing between state and federal agencies.

5. Improve the collection, management and communication of information and data

- Improve socio-economic data collection and reporting in the Basin.
- Address key information gaps that support better water management related decision-making for water users, including communities and environmental water holders.
- and water policy or planning professionals.

6. Develop/refine appropriate responses to declining physical and mental health

- Continue to address short-term acute impacts of the most recent drought through existing commitments, while further developing longer-term drought preparedness policy or measures.
- Improve water security planning and investment for Basin towns and cities.

7. Improve regional infrastructure and provision of services

- Look to invest in transport infrastructure that will address liveability in rural and regional towns and cities, enhance industry productivity and facilitate the connection of production with processing sites and markets.
- Explore acceleration of enhancements to digital connectivity.
- Give consideration to a water constrained future in determining rural infrastructure opportunities to avoid the risk of stranded assets.
- Support investment in 'soft' infrastructure including health and education as important underpinning services in Basin communities.

8. Invest in RD&E to support productivity, manage risks and develop new markets

- Invest in, recommit to, or otherwise support research, development and extension (RD&E) for irrigated and dryland agriculture in the Basin, with a specific requirement to focus on innovation and adaptation to lower water futures and likely future climate scenarios.



Ongoing consultation

We are aware that we were not able to engage with everyone within all communities within the Basin, and that there are people outside the Basin who also have a strong interest in Basin conditions and management. We know there are more stories to be heard, and other evidence to be considered.

Our consultation will continue during the first four months of 2020. As we move deeper into our assessment, the views we are reflecting in this report will be supplemented by further consultation, research and analysis. Together, these will contribute to the picture we are building, and will help us to shape our final conclusions and recommendations.

Please see the 'next steps' section for an outline of upcoming opportunities for consultation.



Context

The Murray-Darling Basin (the Basin) is a place of exceptional importance environmentally, economically, socially and culturally, not only to its many Basin communities, but also to the nation as a whole. Running from QLD through NSW, VIC, ACT and SA, it is an interconnected river system of diverse climates and landscapes. Over 2.6 million people live in the Basin, and three million depend on it for drinking water. The Basin is a large and diverse region that includes cities, towns and rural areas and more than 40 Aboriginal nations with deep spiritual and Cultural connections to the land and water.

A wide range of industries rely on Basin resources, including agriculture; gold, copper, coal and natural gas mining operations; forestry and fisheries; tourism; and all the businesses that service those sectors. Agriculture in the Basin contributes around \$24 billion annually to the national economy, with irrigated agriculture contributing around \$8.6 billion.

Climate is highly variable across the Basin and between seasons, and drought has always been a feature of its climate. While the gross value of irrigated agricultural production has remained steady over the last two decades (in spite of repeated drought events), climate change predictions indicate that the Basin's climate will become drier and more variable, with more extreme droughts, especially in the Southern Basin. Basin communities and landscapes are already changing rapidly in response to drivers including the frequency and depth droughts, demographic shifts, technological changes, government policy and changing economic conditions. While the current adjustment pressures are severe, individual farmers, irrigation communities and the entire Basin have been adjusting constantly to changing circumstances over decades.

The Murray-Darling Basin is a highly regulated water system. In the 1970s it became increasingly evident that water resources were over-allocated, leading to a cap on total extractions for the Basin in 1994. In recent decades Australian governments have implemented major water reforms, including ensuring the legal security of water entitlements, enabling water markets and trade, introducing cost recovery for water infrastructure and services, protecting town supplies, and reallocating water to the environment. The Murray-Darling Basin Plan (the Basin Plan) came into effect in 2012, aiming to achieve 'a healthy and working MDB' by setting long-term average sustainable diversion limits to reflect an environmentally sustainable level of water use. This has involved a 20 per cent reduction in water available for consumptive use. In times of severe drought, water is prioritised for critical human needs across the Basin.

Water markets, based on 'unbundling' water rights from land ownership, are now well established in the Southern Basin and for those catchments in the Northern Basin where regulation and storage structures enable trade. Water markets comprise increasingly sophisticated products, and their value is sizable in dollar terms. Despite the significant reduction in the total consumptive pool of water since 2006-07 in the Basin, and the Millennial Drought between 2001 and 2009, the value of irrigated production in 2018 was around 12 per cent higher in real terms than at the start of the decade.



Our first phase of consultation

We consulted with Basin communities using five methods:

- A call for written submissions (30 July – 16 August 2019) to help shape the Panel's Terms of Reference and Assessment Framework
- 12 open public forums
- 27 roundtable engagement session meetings with stakeholders
- Approximately 17 additional face-to-face stakeholder meetings or presentations
- Approximately 15 telephone stakeholder meetings
- An opt-in anonymous online survey
- A web platform allowing people to publicly post questions and interact with information about the Independent Panel and its work.

Submissions

The draft terms of reference were open for public consultation from 29 July to 20 August 2019. The panel received 45 email submissions, one postal submission and 65 responses through our online engagement platform. We heard from cattle producers; dairy families; networks, organisations and individuals working on environmental protection; horticulture businesses; First Nations organisations; irrigators and their industry bodies; local government; mining advocates; rice growers; media; academics; and township residents. Seventy-three people or organisations consented to their submissions being publicly available. They appear on the website (at <https://www.basin-socio-economic.com.au/submissions>).

The initial call for submissions invited people to comment on the Panel's Terms of Reference. As a result of the submissions and responses, we refined our Terms of Reference and redrafted them to:

- Broaden the analysis beyond the agricultural sector
- Better include First Nations Peoples
- Consider thresholds of community and industry viability in the context of water reform
- Balance the analysis to include positive as well as negative impacts
- Include health and wellbeing in the assessment of impacts
- Include the value of healthy ecosystems
- See all types of water management and reform as drivers of change
- Consistently use clear definitions.

We also heard from the submissions that we needed to:

- Be mindful of the extreme stress people are experiencing and the effort of participation
- Provide greater clarity of purpose, and a more transparent and accountable process
- Make multiple uses of the results, including as a contribution to the review of the Basin Plan
- Make use of rigorous social and economic science in the analysis approach
- Do a stocktake of previous studies to avoid wasting people's time
- Better value local people's everyday knowledge and lived experiences
- Facilitate a grass roots, participatory approach that will enable agreed solutions and successful implementation
- Have a longer time frame
- Address challenges such as equality vs inequality, stability vs change, local vs basin-wide
- Include local government.



While the initial call for submissions was focused on the Panel's Terms of Reference, many respondents took the opportunity to respond more broadly, and we will draw on this valuable information as we continue our analysis. There will also be a further call for submissions in the early months of 2020, inviting responses to the Draft Final Report.

Please see Appendix B for a list of the 65 submissions received that consented to being publicly available.

They can be viewed online at <https://www.basin-socio-economic.com.au/submissions>.

Public forums and engagement session meetings

Panel members met with people across the Murray-Darling Basin to hear the views of community members from all walks of life. We ran more than 50 consultation sessions including 12 open public forums (with over 120 people attending a session in Cohuna), 27 stakeholder engagement sessions (by invitation) attended by more than 600 people, 17 other stakeholder meetings and around 15 telephone meetings, to ensure we heard different perspectives and involved a wide range of people (including in health, education, First Nations, agriculture, agriculture supply chain, local government and business chambers and more).

Panel members Rene Woods, Bruce Simpson and Andrew Kassebaum met with communities in the south-west of the Murray-Darling Basin at Mildura, Menindee, Wentworth, Barmera, Loxton, Murray Bridge and Strathalbyn between 7 October and 11 October 2019.

Panel members Bruce Simpson, Robbie Sefton and Deborah Peterson met with the Deniliquin community on 19 August for a preliminary consultation. Subsequently, panel members David McKenzie, Bruce Simpson and Rene Woods met with communities in Southern NSW and Northern Victoria at Griffith, Coleambally, Deniliquin, Hay, Balranald, Swan Hill, Wakool, Shepparton, Barooga and Cohuna between 30 September and 4 October 2019.

Panel members Michelle Ramsay, Robbie Sefton and David McKenzie met with communities in southern Queensland and northern New South Wales at Goondiwindi, Dirranbandi, Mungindi, Moree, Walgett, Bourke, Warren, Coonamble, Wee Waa, Forbes and Tamworth between 14 October and 21 October 2019.

Panel members Rene Woods and Deborah Peterson met with the Northern Basin Aboriginal Nations (NBAN) on 15 October 2019 in Toowoomba and Murray Lower Darling Rivers Indigenous Nations (MLDRIN) in Melbourne on 1 November 2019.





Please see Appendix C for a list of engagement sessions.

Other sessions were held in Deniliquin and Tamworth prior to the scheduled engagement sessions. Panel members also joined a number of direct meetings with a range of Basin stakeholders. Please see Appendix D for a list of other stakeholder meetings.

In total, more than 750 people participated in face-to-face consultations as individuals and organisational representatives, from all facets of rural and regional life. Information from every face-to-face session was captured through detailed summaries of the discussions, which have been published on the assessment panel's website. The summaries were edited to protect the privacy of participants. They reflect what the Panel heard during the meetings, rather than being direct transcripts.

Detailed meeting notes can be viewed at <https://www.basin-socio-economic.com.au/panel-engagement-sessions>.

Online survey

The panel designed an online Community Experience Survey to support the face-to-face engagement sessions. The survey included a number of qualitative questions (inviting open responses) and quantitative questions, inviting participants to indicate their agreement using a scale that ranged from 1 (getting worse) to 7 (getting better). Qualitative responses were analysed with the aid of NVivo software to identify the most common subjects and themes.

More than 600 people completed the survey between 30 September and 12 November 2019, on an opt-in basis. All survey responses were anonymous. The majority of respondents came from two or three areas within the Basin including Southern NSW (mainly Deniliquin and some areas near Griffith) and central Northern Victoria. Most respondents were 50 years of age or older. As survey responses and comments mainly originate from this demographic, they should not be read as representing the views of all people living in the Basin.

Please see Appendix E for a list of the survey questions and response rates by region.

Themes arising from consultation

- Theme One: Basin communities are feeling the effects of significant pressure
- Theme Two: There are areas of optimism, growth and positive benefit
- Theme Three: The benefits and impacts of water reform are uneven
- Theme Four: Reduction in the consumptive pool of water is exacerbating the effects of drought and climate change
- Theme Five: There are fears for the security of water for critical human needs
- Theme Six: Trust in governments, agencies and markets is at a low point
- Theme Seven: Changes in water demand and availability are resulting in pronounced changes in land use, with consequences for other industries and regions
- Theme Eight: The benefits of environmental flows are not well understood
- Theme Nine: Lack of connecting infrastructure is further impeding economic development
- Theme Ten: Communication, transparency and data need to be improved
- Theme Eleven: People living in rural and regional communities want real participation in decision-making.



Theme One: Basin communities are feeling the effects of significant pressure

Many people living in Basin communities told us they are under immense pressure from reduced water availability and drought – some consider themselves and their communities to be in crisis.

The causes are complex, multifaceted and difficult to separate. They include a combination of factors such as:

- Water reforms (which have reduced the availability of water for consumptive use), the rapid development of water markets, and the subsequent uncertainty about future changes
- Drought, which has exacerbated the underlying reduction in water available for consumptive use and impacted on cashflows (as all types of farms and town businesses struggle to stay afloat with ongoing costs and reduced incomes)
- Changing and increasingly globalised commodity markets
- Ongoing technological change and accompanying trends of reduced demand for labour in agriculture
- Increased future uncertainty and risk in the context of a changing climate
- Lack of access to basic services of health, education, policing and connectivity
- Loss of population and changing community demographics causing more pressure on the volunteers and clubs that provide the social glue and backbone of communities as skilled people and their families move for better opportunities.

We are aware that in difficult times people may have greater focus on the immediate pressures than on careful attribution of cause and effects.

"It will be crucial for the panel to analyse public input sufficiently thoroughly to separate the 'perceived' impacts from the 'real' impacts of the various structural changes that have occurred in agricultural communities. Particularly in times of drought, such as now, everyone is desperate and many are willing to lash out at anyone they perceive as a threat, either rightly or wrongly. Also, there exist many common beliefs that aren't well based in fact, so thorough examination of information for veracity is an imperative. We have seen a proliferation of misinformation, embedded myths and anti-social commentary as water issues have been portrayed badly in the public media. The panel will need to be up-front with the point that just because someone believes something to be true, doesn't make it so." (Border Rivers Food & Fibre submission)

While these causes provide both opportunities and challenges, it was clear from our engagement that the rapid pace of change and extent of the pressures have left many people feeling helpless and that their values, heritage and sense of place are being eroded.

"The volume and pace of water reform to date, combined with the impact of drought and expanding irrigation demand, has meant that some sectors of the irrigation industry and communities are unlikely to be viable into the future (including businesses, schemes and communities)." (Ricegrowers Association of Australia submission)

Many people we met with, particularly in parts of Southern NSW and Northern Victoria, lack hope and any positive vision for the future. Their ability to adapt and plan is significantly reduced, and they feel this is likely to worsen as the drought continues. The rapid pace of change has left some people unprepared and ill-equipped to respond.

"But there are limits to the rate of adaptation of the industry. Dairy farmers in Northern Victoria's Goulburn Murray Irrigation District (GMID) in particular are reaching the limits of economically feasible adaptation now. A major issue is the rapid pace of change necessary to adapt to the Basin Plan and increased competition on a water market that now operates across the Southern Basin and encompasses all commodities." (Australian Dairy Industry Council submission)



"The drought has hit us faster than we assumed it would – sense of futility came on much quicker. We have not fully recovered from the last event, and the cumulative impacts make it harder."
(Barmera engagement session)

"The last 10-15 years is the worst in memory for many attendees. Conditions are worse than during the Millennium Drought." (Menindee engagement session)

"It's just getting too hard ... You never used to worry about water, now it is everything. How do we give the next generation a future? If we can't find an answer, then we will continue to decline. We are losing the next generation of leaders." (Wakool engagement session)

"The emotional wellbeing of our rural communities is in crisis and we need to address this in your report and in policy." (Survey)

From our online survey, when asked if conditions have got better, worse or stayed the same over the past decade:

- 65 per cent of respondents said "the local economy" is getting worse.
- 63 per cent responded that "opportunities for my children and grandchildren" are getting worse
- 60 per cent responded that "the availability of local jobs" is getting worse
- 54 per cent responded that "young people staying/coming back to the community" is getting worse
- 41 per cent responded that "the liveability of this community" is getting worse (less than 2 per cent believe it is getting better)
- 40 per cent responded that "the local landscape and surrounds in this community are getting worse (2 per cent believe it is getting better)
- 35 per cent responded that "access to health and mental health services" is getting worse (4 per cent believe it is getting better)
- 32 per cent responded that "entrepreneurial thinking and activities" are getting worse (3 per cent believe it is getting better).

Please see Appendix F for the full survey response charts.

While responses to questions about pride, friendliness and sporting participation in the community, access to education and training, access to fresh food, access to banking and financial services, telecommunications were less negative (all had fewer than 30 per cent believing they had got worse over the past decade), only a small minority of respondents felt that things were improving in any of these categories.

"The future for our young people is dire and it places a lot of uncertainty on those of us that are retired or near retirement. Will we still have a viable community that has the services we need in the future? What value will our houses and businesses have?" (Survey)

"Wellbeing is being sorely tested and communities are on [their] knees. Prosperity has collapsed, this area was a highly productive and viable place to live, with the removal of the landholder asset of water, the vision of a bright future for the next generation no longer exists." (Survey)

"The financial and emotional stresses caused by the current water situation in Northern Victoria is taking a great toll on me personally and my family ... My son withheld school excursion information from us because he is aware of our financial stresses and didn't want to burden us with it – he withheld it until past the cut-off date." (Survey)



Participants attending meetings in the Northern Basin (Tamworth, Goondiwindi, Dirranbandi, Mungindi, Moree, Walgett, Bourke, Warren, Coonamble, Wee Waa and Forbes) expressed deep concern about their social and economic conditions and many reported worrying levels of wellbeing among community members due to uncertainty about the future. Participants in all but the largest centres expressed an urgent need to stop the rapidly increasing flow of lay-offs and people leaving their towns as the drought continues, knowing the difficulty in attracting the skilled labour needed to enable businesses and communities to rebound. People acknowledged this drought is particularly challenging for farmers and town businesses alike. However, numerous people believe the reduction in consumptive water due to water reform is an underpinning factor limiting the opportunity for businesses and local economies to weather dry periods and rebound as quickly as possible in favourable conditions.

“Look at Collerenabri – it’s a ghost town, due to water reform. Government is responsible for the harm done and must not do this to other communities. Wee Waa and Namoi community cannot withstand any more productive water leaving our economy.” (Wee Waa engagement session)

“There is a cash drought – farm incomes are on the line. Trying to sell herd and sell grain to stay afloat, but reserves are being run down. Tractors are reportedly broken-down all over the district, but farmers are opting not to spend the money to fix them, till they know they will be used – which impacts on the agricultural service sector.” (Moree engagement session)

“There are many people who do have jobs are not getting as much money as they used to. For example, a job sowing crops used to be 60-70 hours per week of work, is now down to 28 hours per week. We have the same costs and overheads, but still must retain some employees because otherwise when it does rain, we won’t have anyone to work.” (Mungindi engagement session)

People across Northern Basin communities stressed the importance of access to basic services and some also spoke of the importance of connectivity of flows for the provision of water security for basic rights for their communities to have a future.

“In order to have business in our rural communities, must have connectivity of flows, must have a hierarchy of use, must have roads, decent communication networks (internet phone), must have an affordable cost of energy.” (Bourke engagement session).

Participants attending meetings in the Southern Basin (Griffith, Coleambally, Deniliquin, Hay, Balranald, Swan Hill, Wakool, Finley, Shepparton, Cobram, Cohuna) expressed concerns about the rate of change in their area, noting acceleration of long-term trends in recent months. Many participants felt that the pace of decline in social conditions in the past 12-18 months was extreme, because of the combined impacts of drought and the reduction of water available for consumptive use.

“Deep distress – there is a gap between social issues and the economic conditions (they are separate). The economic conditions can look ok but really bad social issues.” (Shepparton engagement session)

“Survival mode – no one is looking forward and planning. We are in the thick of it – it’s been like that for the last 15 of 17 years. The Basin Plan came at the worst time to do it.” (Coleambally engagement session)

“It’s really hard for young people to come back and farm, it is hard to have land and also water. Young people can’t find a way in.” (Deniliquin engagement session)



"I'm an accountant – in 35 years, I've never seen a lower level of confidence in the long term across clients. People don't trust decision-makers and that they will do something about it. So 40 per cent are farmers and then the rest are reliant on farming. 30 per cent drop in revenue, some sectors more like 100 per cent." (Barooga engagement session)

Declining physical and mental health and wellbeing was reported as a major issue in many Basin communities, with poor mental health being raised as an issue of high concern at almost every meeting. Apart from dealing with drought, there is uncertainty about future water availability, and many people feel there will be little to come back to once the drought breaks. Among many of the people we heard from, confidence is poor, resilience is low, anxiety is high, and many people cannot see the way forward to any positive future for them or their families or their communities. Other social issues such as increased use of drugs and alcohol are also present, and were highlighted in many meetings.

"Mental health problems here have increased and are concerning. People have never seen Mungindi like this before – we're losing hope and so many people are hanging on by a thread. We don't get the services that we require, and Mungindi's border location makes service provision difficult between NSW and Queensland." (Mungindi engagement session)

"Mental health issues have been hitting hard for the last 12 months and we are getting much worse. A 40-degree summer going to be bad. The morale of leaders is low and there is a deterioration of feeling of hope for the future. We do not have enough mental health services – 1,400 people are being seen by one group of mental health services." (Goondiwindi engagement session)

"We see a lot of people with mental issues ... We see a lot of acutely suicidal people with no counselling ... There is also an increase in crime and violent crime." (Local doctor, Cohuna engagement session)

"Can't sleep. Bank's on the phone every week. Financially stretched." (Survey)

"Increasing frustrations in delivering services in regional areas (with growing demand). It is a sleeper issue, and a big one ... Seeing depression and anxiety, as well as a lot of anger and frustration – that is really scary. People feel so angry and impotent with regard to what they are facing." (Wakool engagement session)

"The difference from the last drought was that mental health issues were present from the outset, although was only with the smaller producers. The mental health issues are now more likely to be observed in the larger producers. They are more vulnerable. The 20 per cent who produce 80 per cent of the output. They have a lot more at risk, more anxiety and stress." (Barmera engagement session)

"The community is becoming increasingly fragile – our soul and spirit has not felt like this before." (Moree engagement session)

Some pointed out the indirect consequences and costs of addressing specific individual needs within the Basin without reference to wider community needs also.

"The National Farmers Federation states there are 85,681 farmers in Australia, while the number of disabled Australians is 4 million (<https://www.and.org.au/pages/disability-statistics.html>). While it is clear that some farmers suffer serious mental health impacts during droughts, is their suffering higher than those with mental and physical disabilities in the rest of the community if we consider the duration, full impacts costs, and personal impacts across individuals and the families/carers? Can we state with certainty that farmers are suffering more, and that as such the opportunity cost of reallocating significant NDIS funds (~\$500 million) to compensate them is justified?" (Loch et al., University of Adelaide submission)



Many people believe population levels in their communities are declining in response to falling employment opportunities, loss of business confidence, and the rapid exit of farming families due to farm consolidation, transitioning from one sector to another, or farmers 'mothballing' operations until the drought breaks and the future is clearer. While this trend has been in evidence since before 2006, many believe it is being driven at least partly by the exit of farming families, particularly in Northern Basin communities.

With the severity of the current drought, particularly in Northern Basin communities, the trend of population decline has rapidly increased in recent months with both town and farm businesses desperately trying to retain staff despite incurring ongoing losses. An observation of changing demographics as skilled people leave towns for better employment and other lifestyle prospects has been common, especially across smaller towns but also regional towns. Some participants believe inadequate levels of access to education and health services and community infrastructure and facilities, along with poor connectivity are also factors driving people to leave.

In the southern zone many dairy and annual crop farmers and related agriculture service sectors, particularly from towns like Finley, Barooga, Cobram, Cohuna, Shepparton surrounds, and Wakool feel vulnerable. Many of the farmers in these industries that we met described how they are exposed to high prices in the water allocation market (sometimes as a result of selling entitlement to get through the Millennium Drought) and cannot compete with higher 'dollar per drop' producers. This is triggering many farmers to exit, including more established and increasingly larger farming businesses. Some farm businesses are taking the opportunity to buy these properties and add their own holdings, which can lead to enhanced productivity and profitability for that enterprise. However, this process can reduce the number of people in the region and reduce demand for related agricultural services, as well as local business in smaller towns.

"Amalgamation of farms is a massive challenge. The big operators/corporate farmers won't support the local community the same way – they are not as proactive or involved in the community." (Mungindi engagement session)

"If the ag sectors shrinks further and the vibrancy disappears with young people deciding they're better able to make a living in the bigger centres, then services offered in the community will shrink. This will cause flow-on effects such as reduced education amenities, sporting and numerous other things that make up a community." (Survey)

"There is an age demographic problem. The middle-aged people have gone, and the kids have left. Young people leave and never come back. People who go to university study something else and do not come back." (Loxton engagement session)

"Community groups are the lifeblood of rural communities but as our young leave it falls to the older people to continue. How long can this go on?" (Survey)

"We will become a dust bowl. Do you care? We feel that no one is listening to us, the government does not care. We are just the collateral damage of the Basin Plan." (Survey)

"In 2007 in 5000 hectares had 40 strongly operating farms, and now down to more like 10. If you have a Christmas thing, you would get 100 at the hall, now it is 25. It is a big adjustment and there is animosity for what is now lost. It is a totally different fabric, it's gone." (Shepparton engagement session)

"102 farms in a 25km radius of Numurkah have shut down since December 2018. Another 9 per cent of dairy farms expected to leave this year, and another 10 per cent next year." (Shepparton drop-in group)



"Smaller towns have a really serious population issue, as lost a good percentage last drought and are losing the 35-45-year-olds now – the ones who invest and contribute and have kids." (Moree engagement session)

Many people identified declining employment opportunities, underemployment and skills retention in their communities. These people acknowledged that changes in employment and industry structure are occurring for a variety reasons (such as technology changes and rising input costs). However, they felt current drought conditions and water reform have compromised the viability of local businesses and their ability to hold onto staff. Some people we met with spoke of their desperation to keep their staff employed so that skills and key services are kept within their communities, and they can ramp up production after tough times.

"Small businesses are closing – recently we have lost the local newsagency and the mechanic." (Walgett engagement session)

"Many businesses are cutting back hours for part-time and full-time workers (for example farm machinery businesses). Anyone who isn't a salaried worker is out. As a result, lots of people under-employed." (Warren engagement session)

"Everyone is trying to help each other out in terms of work and to keep local agricultural supply businesses going for when drought does break (e.g. tire shop operator has reduced hours down to 4 hours a day and is being employed by a farmer to try to keep his doors open)." (Mungindi engagement session)

"Other businesses also being impacted. We have lost some traditional retailers. People are trading at reduced hours, there is underemployment, and high costs which means it is too expensive to hire staff when they're not making wages. Local law firm has reduced employees – and the nature of the work has changed to subsistence-based issues rather than work-related with improvements and development." (Moree engagement session)

"As businesses restructure and change their model – what does it look like? There are risks associated with a fly-in fly-out community, opportunistic farming, very few family farms etc. all leads to broken social structure, less volunteers, less employment, and corporates access their solicitors, banks, accountants etc. in capital cities." (Moree engagement session)

"Reduced population means reduction in school student numbers. Many people are travelling to larger centres for work often travelling 200km round trip every day to support farm income resulting in less family time and less able to support community with sport and volunteering." (Survey)

Services in some areas are deteriorating. Many of the people in these communities spoke of a lack of essential services in their towns and communities, and difficulty attracting skilled people to provide these services into their towns. For example, some smaller communities and some larger centres are struggling to sustain basic services and attract workers, and to retain workers to fill vacant positions in health, welfare, policing, schools and the community sector. In addition, people told us that the lack of (or expense of) essential services in rural and regional areas is contributing to people leaving communities.

"Basic services aren't available: there's no childcare in our town with a population of around 400 – 500. This is down from a population of 711 in 2016." (Dirranbandi engagement session)

"The critical shortage of GPs has a big impact on health and is driving people away. Currently 6-8 GPs short and wait list is 6-8 weeks for an appointment." (Moree engagement session).



“Staffing is one of our greatest concerns – affects our ability to maintain services. Cannot recruit experienced nursing staff or enough doctors. Doctors’ residences were sold and we’ve been trying to recruit a GP for 2 years. Narrabri High School is eight teachers short. Offered a \$20k incentive and can’t attract an Ag teacher.” (Wee Waa engagement session)

“Town has already reached a fly-in fly-out situation, with numerous professional roles living out of town now (headmaster at school, GM at Council)”. (Warren engagement session)

“Fly-in, fly-out health services just don’t cut it. Front line emergency services are copping the lot, but they do not have the training to provide adequate support.” (Walgett engagement session)

Education was raised as another area of particular concern, partly due to the links between enrolments and funding.

“Becoming understaffed and underfunded in education and health services. We are trying to support each other and trying to attract people but we don’t even have confidence to employ people for more than 12 months.” (Finley engagement session)

“We’ve lost \$100,000 in funding to local Early Childhood Education (preschool) – because it is based on enrolments. They take a snapshot on student numbers and then fund us accordingly. We are deemed inner-regional – we are funded in the same way as Bendigo, the difference in funding is \$850 per student. So our ability to survive is being really severely taken down.” (Finley engagement session)

“Lack of support for people coming in. There is a rise in contract labour from overseas, but we have a poor education system that creates an intense entrenchment of disadvantage.” (Shepparton engagement session)

First Nations communities not only feel that their health and wellbeing is suffering, but also their identity and Culture – while they are also being marginalised and excluded from the benefits of water reform. First Nations representatives from Northern Basin Aboriginal Nations (NBAN) and Murray Lower Darling Rivers Indigenous Nations (MLDRIN) (as well as those who participated in engagement sessions and public drop-in sessions) highlighted the deep and enduring Cultural, social, spiritual, customary, environmental and economic connections that they have with their traditional lands and waters across the Basin. First Nations respondents felt a sense of loss of access and declining health, Culture and identity.

“The ochre we put on our bodies. It is mixed with the water of the Macintyre River. We do not have that aspect of our Culture without that water.” (NBAN engagement session)

“Mental health is a huge issue. There is a suicide epidemic along the Darling River. Our people are experiencing a loss of our identity as River people with the rivers dying. We don’t see a future.” (MLDRIN engagement session)

“You can hear it in the language and words of our kids. You can hear the hurt, the pain, the trauma of it.” (NBAN engagement session)

“First Nations people remember a beautiful, thriving community back in 70s, community harmony, everyone able to live and school here.” (Wee Waa engagement session)

Many of First Nations people along the Darling River spoke of the loss of access to Cultural sites and lost Cultural and social opportunities associated with use of the river, both because of reduced water flows and because of policy and the difficulty in negotiating access arrangements.

“The social element of using the River is missing. For example, we used to go fishing. You could catch eight yellowbellies in a session and you’d always share with the Aunties and Uncles. Family used to come to be on Country from the city and camp out for weeks. They’d have different groups



*of people heading out there and spending time together on Country. You can't do that anymore.”
(MLDRIN engagement session)*

“First Nations people are struggling a lot – the river is deeply engrained in Culture and daily life. Used to go fishing with their families but now they look at the river and it breaks their heart. Loss of family, social opportunities, amenities. Causing mental health issues.” (Bourke engagement session)

“First Nations Cultural tourism could be an opportunity from environmental outcomes that benefits the whole Moree community. The demand is there, and there are some incredible sites, but we don't have access to Cultural sites through farms or in wetlands (currently there is 2-3 weeks restricted access to limited parts of wetlands per year). Also the work CMAs [Catchment Management Authorities] were doing to progress access agreements between landholders and First Nations is stalled.” (Moree engagement session)

“First Nations people need to have Cultural access to water – Indigenous access to river for fishing. TSRs [travelling stock routes] gave access to rivers. One of the issues with TSRs is that they remove access due to fencing under management agreements. There has been loss of connection to country.” (Wee Waa engagement session)

Economically, we heard that First Nations people feel that they are being left behind while other Basin communities have benefitted from the development of agriculture and other major industries. First Nations leaders in NBAN and MLDRIN highlighted unemployment in First Nations communities and pointed towards declining employment opportunities as a result of technological changes and the replacement of First Nations people by overseas workers. First Nations people spoke of a desire to have Culturally appropriate employment and economic development opportunities for their nations.

“Underemployment in the mainstream industries. No country town is employing Aboriginal people. You go to any town; you cannot get served by an Aboriginal person. You get served by backpackers. You are more likely to be served by a German than an Aboriginal person.” (NBAN engagement session)

“How do we hook into the same programs that are available to irrigators? How do we tap into those resources? They've got exit strategies. We don't have that. We're stuck, with no way to get out.” (MLDRIN engagement session)

Some progress has been made in recognising traditional owners' rights to water resources, and there were signs of optimism in Bourke about involvement in the Stronger Places, Stronger People Australian Government program. There is work needed for First Nation communities to be included into the environmental water area. There is also much to be done around the economic opportunities and Cultural flows, which some states are now working on.

“There has been some improvement. Especially the position on the MDBA Board. And the change in the Act. Those are political improvements. We now have Aboriginal outcomes and objectives being embedded in the water resource plans. But no real improvements on the ground. It hasn't translated into on-the-ground improvements. We cannot see the improvements. It frustrates our mob.” (NBAN engagement session)

“Bourke is currently participating in the 'Stronger Places, Stronger People' initiative (Australian Government program). Bourke is the first location in Australia. The project is a whole of community approach to disrupting disadvantage involving local decision-making. The project is an important step towards self-determination for the people of Bourke.” (Bourke engagement session)



"In Victoria the situation is better. They've started to invest in supporting First Nations to have access to Cultural water, but First Nations people do not influence decisions enough. We feel like the government departments use us to attract funding. Bureaucrats use us to help themselves to move up the career ladder." (MLDRIN engagement session)

Theme Two: There are areas of optimism and growth

We heard also heard positive stories and opportunities emerging. There are farm businesses, processors and communities that are getting on the front foot and preparing for the future. Some industries and businesses are expanding, some niche industries are doing well, and economic benefits are flowing to some sectors and regions – particularly in some of the Basin's larger towns, where irrigation opportunities have expanded due to the purchase of water and where government has invested in on- and off-farm irrigation infrastructure upgrades. And some people expressed appreciation for environmental watering programs, and the opportunities for lifestyle activities and tourism associated with environmental flows.

"It will be important to highlight the 'impacts AND opportunities' that have occurred and how they have transpired. It will be unfortunate if the study focuses solely on 'victims', though that will be an important component, but [it should] also analyse those who have done well and how and why the two have differed. We hope that the study will not just be a tale of woe, but can also be useful in informing how things can, and must be done better from now on." (Border Rivers Food & Fibre submission)

"There are some great models in Coonamble that are proving to work for small business: The Hub, The Terminus Hotel, and Rohrs. All involve collaboration, collective sharing of costs, some pooling of resources and skills. Important to note that the model is what makes it work – there are innovative people everywhere!" (Coonamble engagement session)

"Huge opportunity for First Nations tourism – grey nomad trails, linkages between communities. One obstacle is the need for local government to be open minded and collaborative with neighbours as the success of the trail is the linkages across a wide geographic area." (Forbes engagement session)

"Environmental watering programs have provided a focus for environmental assets." (Survey)

"Water for recreation is definitely the winner. The River has been at a minor flood level for nearly two years delivering 'environmental flows'. This has resulted in an increase in the use of the river for recreation." (Survey)

"The Basin Plan has had water returned to the system to maintain critical habitat at least." (Survey)

In many parts of the Basin (particularly the northern zone), social cohesion and unity were felt to be strengths.

"People are coming together to fight this insanity. Our community can see the injustice and are worried about the farming sector. We are becoming cohesive. Nothing else is going well. Our little town looks tired, like its people. Throwing money in government grants for new parks and sporting facilities won't help. We need our thriving agricultural sector to return." (Survey)

"The good thing about this community is that people are looking out for their neighbours. We have several dairy farmers on the cusp of bankruptcy and their mental health is a worry to all." (Survey)

"This is a thoughtful community and people are trying to look after each other. Yearly planned



activities are not being cancelled, mostly folk are trying to keep things 'normal'. But I have noted more visitors attend events like the gymkhana than locals." (Survey)

"Strength: community spirit – people who stick together and have each other's back. Diverse community, no divide between in and out of town but we are losing numbers which is hard. (Dirranbandi engagement session)

"We are a resilient community. We band together. The town realises that they need each other – farmers and town people. We are a very inclusive community." (Mungindi engagement session)

Many people across the Northern Basin also pointed to the assets in their own communities. There is strong desire across people from many communities for self-determination and the understanding of opportunities that exist where existing assets and strengths can be leveraged.

"There are some great models in Coonamble that are proving to work for small business: The Hub, The Terminus Hotel, and Rohrs. All involve collaboration, collective sharing of costs, some pooling of resources and skills. Important to note that the model is what makes it work – there are innovative people everywhere!" (Coonamble engagement session)

"Coonamble and other smaller communities need to leverage from existing assets and strengths. Need to think about what we already have that we can build on, rather than what can we bring to town." (Coonamble engagement session)

"This is an innovative area with a proactive population based on a culture that has been nurtured. Local government is working well; building partnerships with universities is valuable." (Goondiwindi engagement session)

"Real opportunity: need a register (pool of available local resources) of local farmers, contractors etc. their skills in order to optimise employment opportunities from big contracts such as Inland Rail." (Moree engagement session)

Some participants in Southern Basin meetings expressed optimism about the future and see opportunity in the agricultural sector, with favourable commodity prices and modernised farms ready to take advantage when water becomes available. For example, the growth in cotton production further south (e.g. around Hay) has helped underpin the local economy and provide new opportunities for farmers into the future. Large corporate developments have brought investment and opportunities, though some people believe this wealth is not being kept in the region.

Some bigger southern zone centres such as Swan Hill and Shepparton consider themselves to be in a better a position. Such locations have more diverse economies and opportunities outside of irrigated agriculture and more stable or even growing populations (sometimes absorbing people from surrounding towns). These centres are not immune from social and economic challenges by any stretch, but exhibit stronger feelings of hope and opportunity for the future.

"While most people would see the logic in water moving to 'highest value use' there is no doubt that some industries and some irrigation sectors and communities are negatively impacted. It is also true that some communities have benefitted from this market establishing new or enlarged irrigated agriculture developments which have required significant investment." (Cotton Australia submission)

"Lots of people are pretty optimistic and actually see an opportunity in the pessimism to the area (i.e. we'll take it off your hands). There is a real chasm." (Deniliquin engagement session)

"From my perspective, drought or reform – it's just about management. Different levels of



management in business. The top producers are planning and making provisions for what is around the corner and they thrive in these circumstance (they get ahead) – so the absolute best are going fine, their biggest challenge is taxation policy. Really two extremes.” (Griffith engagement session)

“The economy is buoyant and significantly diversified – think it is strong. We have a strong industrial sector, has grown significantly, strong manufacturing (selling industrial into Perth and Darwin) from local businesses. There are tough pockets, but think we are in a position to pull through.” (Swan Hill engagement session)

“Shepparton is travelling ok – but satellite towns are bouncing up and down. Can’t put social and economic in the one basket – we can have economic gain but can still social change or loss.” (Shepparton engagement session)

The people in the western communities we heard from showed a high degree of variation in reporting the social and economic conditions affecting them. People in some towns such as Mildura, Wentworth and Murray Bridge feel they are being negatively impacted by drought, but not as badly as the surrounding smaller communities (or small remote communities like Menindee) which are experiencing a faster rate of decline.

“Wentworth will do fine. There [are] enough services here and public servants here. It is fine. The smaller communities will become satellites with nothing there.” (Wentworth engagement session)

Many people from the western zone pointed out that water management decisions and water reform, as well as other long-term trends and drivers, are affecting communities in different ways. For example, people in Menindee feel that water management and operation of the Menindee Lakes Scheme has negatively impacted water security and contributed to the decline of irrigated agriculture in the area. Many of the people we spoke with from communities in the western zone also see changes to government policy and rules as impacting certainty and investment confidence.

“We must stand together, because we all drink water. Current health of Menindee along the Baaka is bad. A lot of people are emotional as there is no water.” (Menindee engagement session)

“The last 10-15 years is the worst in memory for many attendees. Conditions are worse than during the Millennium Drought.” (Menindee engagement session)

Meanwhile some people in Mildura, Wentworth and Barmera noted that irrigated agriculture in their regions has expanded considerably in recent years, underpinned by secure access to water and pointed to ‘unbundling’ and water markets as key mechanisms to manage water scarcity.

“There are some people who are using the technology and the techniques and who are doing better with it. The people who are more efficient, getting the value out of the water are those that will survive.” (Murray Bridge engagement session)

“Irrigators have never had it as well as they do now. Destiny is in their own hands.” (Mildura engagement session)

“We have been growing rapidly in the last few years. But we cannot grow any larger because we do not have enough people here.” (Murray Bridge engagement session)

“The Basin Plan has helped this community.” (Strathabryn engagement session)

“The community is going quite well. There is plenty of opportunity and development.” (Wentworth engagement session)

“We are all here because we want to make the region work. There are some pretty big businesses



right across the productive chain which are here and making things work.” (Murray Bridge engagement session)

“The opening up of the water market has been a good thing. We definitely would not have survived the last drought without it. The market is going through an adjustment. It will be brutal but will get us there.” (Barmera engagement session)

“We have water here, land here, cheap gas here. We have a lot of successful producers supplying Adelaide and a lot more.” (Murray Bridge engagement session)

Theme Three: The benefits and impacts of water reform are uneven

Some submissions observed that water reform has provided net benefits to society overall – changes to water policy and management have contributed to the overall growth in irrigated agriculture, improved the efficiency of the sector, driven efforts to address over-utilisation of water resources and brought many improved environmental outcomes. These submissions noted that revenue from water sales can supplement farm income and provide finance for other on-farm or off-farm activities, and facilitate exit from an industry. They also comment on the importance of water trade – a key aspect of reforms enabled by separation of water from land – in lessening the impact of reductions in irrigation water availability. A number of people also referred to benefits that could be categorised as ecosystem services, that are correlated with flows in the river and protection of environmental assets.

“... many communities perceive the impacts of water reform as negative without considering what would have happened had water reform not been undertaken. Over-allocation of water has been very damaging to rivers, floodplains and wetlands across the Murray-Darling and this has had a serious impact on the ecosystem services (including amenity and well-being) provided to communities as well as the intrinsic value of the ecosystems themselves.” (Lifeblood Alliance submission)

“I would also like to stress that while, in recent times, there has been a considerable critique of the Basin Plan, in my opinion, its form and structure is consistent with world best practice. Yes, we are still learning but it is important not to throw the baby out with the bath water. Tremendous gains have been made, especially in the more efficient use of environmental water and in the productivity of the Basin’s irrigation sector ... As more and more efficient forms of agricultural technology are adopted and, if Australia is to remain prosperous, the number of people employed per drop of water used must be expected to decline. This reality is not the fault of water policy.” (Professor Michael Young submission)

Other people we heard from pointed out that water reform has benefitted some more than others and led to a transfer of wealth between regions. Its impacts have not been evenly distributed and have even caused harm. Water recovery has reduced the amount of available water (the consumptive pool), which is having a negative impact on some communities and industries, and the pain associated with the current drought and other structural changes is deeply felt by many communities. Some farmers, particularly rice and dairy, told us that they fear they are approaching a tipping point, where ability to rebound could be terminally impaired. While industries and communities in regions where water is transferred in may benefit, smaller communities and those with agriculture as a higher proportion of economic activity are more likely to be negatively impacted when water moves to other locations.

“This district will probably have one third of the farms we have today. You need a process to facilitate that change. We have a lot of last generation farms.” (Finley engagement session)

“The effect of buyback was 10,000 acres of ‘green acres’ production cut out of the area. Has



fourfold effect – money was removed from the community, resilience was affected because land was not available for use in good years, farms left. The voluntary buyback was between irrigators and government, but the community is forgotten.” (Dirranbandi engagement session)

“The declining quality and quantity of water available is a challenge across all segments of the community. Lack of water security is limiting opportunities across all sectors.” (Tamworth engagement session)

“Water is clearly missing in the landscape. We can talk about achievements. But if there is no water, you cannot say there has been a success. All the talking and the planning, it’s worth nothing without water that people can see. Until we see water flowing here, and past, and through to Menindee Lakes.” (NBAN engagement session)

“The irrigator perspective: a mind-boggling level of uncertainty, which has rolled on for a number of years. It affects town businesses too and leads to uncertainty about access to services in town.” (Dirranbandi engagement session)

“We have been in the areas since 1872. We have had wars, droughts and plagues and we have survived right through until water reform started. I am fifth generation and now I am out. We cannot and adjust to this water reform – and we have done for everything else.” (Cohuna engagement session)

Reflecting the state-by-state complexities in rules, regulations, policies and practice, the Panel heard people expressing confusion and anger over annual water allocation outcomes, particularly on the Murray, with some people not understanding why allocations have declined dramatically in 2019, and why some areas have received allocations while others have not. Some people believe that the security and yield of their entitlements have been eroded by policy settings. Some people perceive water markets as being unfair and that high water prices are making their agricultural industries unviable. Some respondents believe that unbundling has encouraged speculators, and removed opportunities for small- and medium-scale farmers.

“Get rid of water speculators that control the price of water, return water to people who use the water to feed our country.” (Survey)

“Drought has demonstrated what will happen if any more water is taken – there is no buffer for community economy as a result of water reform.” (Moree engagement session)

“The unbundling of the water has crucified us.” (Survey)

“When water was attached to land, this drought-proofed land. We separated and lost control of our asset. All this country developed for irrigation in the past but lost the ability to keep doing that.” (Hay engagement session)

We heard that this is prompting some farmers (including more established and increasingly larger farming businesses) to exit, placing their farms on the market, with a knock-on effect of reducing the region’s population, as well as demand for related agricultural and other services in smaller towns.

“In our community, water is our ‘oxygen’, without ‘oxygen’ we can’t survive. The control of this ‘oxygen’ has now transferred to ‘investors’ who don’t reside in our communities and don’t care about the long-term sustainability of communities. Instead they are driven by the best short-term return on investment, which may not necessarily assist our communities.” (Survey)

“Water market is difficult to get a handle on. Policy changes can dramatically impact trade opportunities, those in the know have more advantage.” (Survey)

“Corporates or retired landowners who have sold land but kept water to trade have dedicated



personnel who can watch the market and factors which may have impact. Full-time farmers have a multitude of issues to manage so are disadvantaged.” (Survey)

“Water trading is also shifting wealth out of our town – this has changed the relationship between water, wealth and community.” (Hay engagement session)

Dairy service provider: “These last few years have been very tiring, have lost customers (normally would have 200 and now down to 145) ... it just doesn’t look that sustainable, it really is devastating and upsetting ... We used to have 13 staff and down to 9.” (Barooga engagement session)

“Smaller farmers need a less volatile temporary water market and ongoing access to small parcels of entitlement. Most entitlement parcels coming onto the open market are of high volumes which are out of reach of the smaller farmer, yet many would like to build up their long-term water security for the benefit of themselves and their community. The large parcels appear to get picked up by investors/speculators.” (Survey)

We heard from First Nation community members that they are impacted directly by lack of access to water to provide for livelihoods, Cultural needs and economic development. Engagement session participants expressed that they feel alienated and marginalised from the process of water reform, and do not have genuine access to the economic benefits of water resources in the Basin.

“Water reform has taken all the water out. It is real bad. The only water left is really brown. We need a machine to get water to drink.” (NBAN engagement session)

Theme Four: Reduction in the consumptive pool of water is exacerbating the effects of drought and climate change

The length, depth and frequency of drought has a profound impact on the health and wellbeing of people and communities, and while many people understand water reform is not the sole cause of their region’s current vulnerabilities, we consistently heard that water reform is exacerbating the worst of the impacts of drought for some communities and sectors. Many respondents believe that reduced water for irrigation has removed a buffer to drought and reduced the scope for post-drought recovery.

“We need to discuss the drought, but we can’t lose track of the fact that that water reform is the biggest issue in this community.” (Wee Waa engagement session)

“Drought means there is no water to test the success of water reform.” (Bourke engagement session)

“Timeframes matter (related to seeing socio-economic impacts). We had a good winter crop following buybacks in 2013-14. We are only really seeing the delayed impacts of buyback now, following two years of no production. The drought is now showing its full impact.” (Warren engagement session)

“There will be a big challenge coming out of this drought with a big consolidation wave – people are saying that they are not going to go through this again.” (Mungindi engagement session)

“Comparison between now and the Millennium Drought is that this time we feel cheated and don’t have confidence in the rebound.” (Finley engagement session)



"We have the cumulative impacts of ag change, drought and Basin Plan. Those factors combine to drive uncertainty. Small town in Coleambally and narrow economy, so we are worried and see uncertainty and recovery as a big threat. If this drought continues those issues will grow worse in people's minds." (Griffith engagement session)

In the Northern Basin many participants saw water reform as a significant (and in some cases primary) underlying driver of the challenging conditions being experienced in the region.

"The increasing challenge is driven by government policy. Most farmers will handle the drought and can trust in Mother Nature to help when it rains, but when the farmer has restricted capacity to access a share of flows, we can't see how we can rebound." (Wee Waa engagement session)

"This drought and its impacts are different for the community this time – harder due to weakened position going in (range of factors including water reform, length and breadth of drought, regulations and red tape increasing costs to business) which means less able to rebound." (Goondiwindi engagement session)

Some participants, particularly those from communities along the Macquarie, Namoi and Gwydir Rivers, raised issues of over recovery of environmental water or planning restrictions that limit water use below Sustainable Diversion Limits.

"There has been major over recovery, and the water recovery process did not occur strategically – 46 GL of recovery in one hit from the Macquarie in 2008. The buyback of water has had a huge socio-economic impact and some water should be returned to the area." (Warren engagement session)

"We need the ability to use the full amount of water under our SDL [Sustainable Diversion Limit] 231,000 ML (people estimated under use of water in the Namoi valley of 20 per cent per year). Irrigators have spent \$200,000 trying to resolve the issue. We need MDBA to respect SDL and allow NSW to make the necessary changes to WSP [Water Sharing Plan] to enable use up to SDL. This access, which has been set as sustainable in the Basin Plan would have prevented Wee Waa from entering drought for another 12 months and it now affects capacity to rebound". (Wee Waa engagement session)

Participants across many northern communities commented that water reform has been going on for a very long time in some valleys, and that water reform has resulted in a lack of certainty and confidence for communities. They also expressed concern that their resilience and ability to rebound from tough times are diminished by successive water reforms and extended drought.

"Implementation of the Basin Plan has made life highly uncertain. We do not know whether there will be further water recovery. There is a high level of uncertainty – for landowners, banks, financiers, not just irrigators. The impacts have been felt by the whole community." (Dirranbandi engagement session)

"With threat of additional recovery, there is no secure future as policy settings are driving down available water, much less than the 1994 CAP." (Wee Waa)

"We have got farmers with ZERO water allocation and farmers with allocation that not delivered, and cannot even feed stock let alone plant trees or employ farm workers. Mental ill health is at crisis point, depression, suicide are no longer rare events. This is a national tragedy." (Survey)

People told us that the current drought is having a profound impact on health and wellbeing at both the individual and community scale. With climate change predictions warning of more frequent and longer duration dry periods, these impacts are likely to increase over time, driven by anxiety that this may be the 'new normal'. Across consultations we heard that many respondents accept climate



change as a reality, with clear and present impacts. Many believe that governments are failing to take action on climate change.

"The single biggest driver of rural community hardship has been, and in future will more likely be, climate variability; in particular extreme flooding and droughts. There is credible evidence that future drought will be more frequent, severe and of longer duration." (Submission, Loch et al, University of Adelaide)

"The big one is climate change, leading to heat stress and drought." (Survey)

"Climate change is influencing the long-term decline in water availability that is so challenging for communities, but on the other hand mitigation and adaptation initiatives will open up new opportunities and income streams." (Lifblood Alliance submission)

"...the government's inability to recognise climate change as a problem. Developing a carbon market to enable farmers to care for the land and get paid for it. Farmers control most of the land in Australia and they need the incentives to care for this resource. The carbon market would help solve the drought strategy or lack of it." (Survey)

"Government has their head in the sand – they don't even pretend that climate change exists." (Balranald engagement session)

"If you don't acknowledge climate change then you have nothing to build on." (Shepparton engagement session)

"Scientists from ANU have predicted that Dubbo will be four degrees hotter in 2050. As I age I spend more and more time indoors waiting for summer to end. It is drier and hotter every year and my life is less enjoyable ... I find the set-in their ways mindset of my fellow Dubboites distressing. They follow the words of the politicians who feed them nonsense." (Survey)

"We need to seriously look at how climate change and lower rainfall and stream flows will affect the environment. Currently the solution appears to be to take as much water as possible to maintain the basin in the state that it was before irrigation. Is this going to be possible in the future with climate change? Is this even a good thing?" (Survey)

"We need to recognise we are in a climate emergency and plan adaption accordingly." (Survey)

"The climate change side of the Basin has not been looked into properly." (Strathalbyn engagement session)

There has been Government investment in structural adjustment packages aimed at supporting communities most impacted by the Basin Plan. These initiatives will be considered, along with important elements of any future investment as the Panel looks deeper into recommendations. The Panel will also be taking account of the research and modelling work it has commissioned which will provide a greater understanding of the distribution of impacts and hence the targeting of government responses as it is critical that we convey that one size does not fit all.

Theme Five: There are fears for the security of water for critical human needs

A number of people expressed fear for their town water supply and for the security of water for critical human needs, with flow-on impacts on amenity, health, wellbeing, tourism and investment. We heard from some townspeople that they feel let down by lack of government planning for urban Critical Human Water Needs during extreme water scarcity, when the need for such planning has been evident for a long time.



“Water security – of town water supply – not being able to water garden has an impact on mental health and makes people feel they don’t want to live here anymore.” (Deniliquin engagement session)

“The Commonwealth Government hasn’t done anything to support infrastructure / water security in Bourke area, for example, building a weir or regulator at Bourke and Wilcannia to provide town water supplies and support horticulture.” (Bourke engagement session)

“People are concerned about the lack of water, and the impact on essential services such as emergency services. The Warren NSW Fire and Rescue Branch’s water supply is on river water. If river stops running everything is jeopardised during a fire. Does evacuation become a government proposal? If the river stops flowing, how do we survive? We are [Burrendong Dam] on 4.5 per cent.” (Warren engagement session)

“People are concerned about the quality of bore water as the source of potable water for the town when the river stops.” (Warren engagement session)

“Increase Mungindi Weir storage for use by WaterNSW as a downstream re-regulation storage to enable holding of water in the weir to more efficiently manage releases further downstream. The weir is situated on the town common, so would also have benefits in helping secure town water supply (which is currently under threat due to the drought) and would make a positive difference to the social aspects of securing water for the townspeople.” (Mungindi engagement session)

“Town water supply is a major concern, bore water quality concerns. Can’t get bore drillers, they are booked up.” (Warren engagement session)

“People are also concerned about the quality of bore water as the source of potable water for the town when the river stops.” (Warren engagement session)

People in downstream Darling communities have for many years repeated their message that low flows for basic rights and town water supplies are not being protected.

“There is very little irrigation in the Central Darling Shire – and another 500km of river from Bourke, to Louth, Tilpa, Wilcannia, Menindee. Protection of low flows is paramount for this region.” (Bourke engagement session)

“The Basin Plan has failed to deliver or protect low flows – lack of low flows is a major driver of social issues in the community.” (Bourke engagement session)

However, in some places we heard better news.

“We have a very good town water supply.” (Moree engagement session)

“Water for urban usage has improved due to access to the water market and buying advantages of the regional urban water corporations.” (Survey, Shepparton)

“Town water filtration and storage is better.” (Survey, Jerilderie)

Theme Six: Trust in governments, agencies and markets is at a low point

Trust in governments, water agencies and water markets is at a low point, and is related to an accumulation of issues, including the fragmented nature of government responsibilities and the complexity and lack of transparency of water policy, allocation frameworks, environmental watering, water markets and decision-making across governments. Some communities are losing confidence in their capacity to influence fair and equitable decision-making.



“When faith in institutions is low, achieving reform goals that pursue national interests becomes all the more difficult. Behaviours and debate become toxic; negotiations more difficult leading to insurmountable trade-offs; and marginal issues with minor ramifications gain strength to derail necessary change—leading to a greater overall burden on the public purse.” (Loch et al., University of Adelaide submission)

“There is a complete sense of abandonment. It seems to only benefit a select few. People here are grieving about what has happened. From Bourke down. It has been neglected and forgotten about.” (Wentworth engagement session)

“There is a lack of understanding or faith in the (Minister’s) capacity and the Minister’s intentions for the outcomes of this work. We question whether he can actually do anything and are concerned he might be setting up the 450GL water from the Northern Basin.” (Wee Waa engagement session)

“Currently no trust because of the lack of respect from remote decision makers – communities need to be embedded in decision conversations e.g.: water management.” (Goondiwindi engagement session)

We would go so far as to say there is a crisis of confidence in the implementation of the Murray-Darling Basin Plan. The social licence for current or future water reforms is under extreme pressure and this poses a serious risk for effective implementation of the next phase on the Plan. The chasm between government and many people on the ground is enormous.

“A breach of trust that I have never before seen has taken place. This policy structures the water market so that water prices make many irrigation communities unviable.” (Survey)

“It is currently the case that there is undeniable outrage, frustration, feeling of hopelessness and a complete loss of trust in politicians, the relevant authorities, and government in general in Basin communities. This is something we are hopeful that this review is able to unpack and look to ways to rectify.” (Country Women’s Association submission)

“There has been an active policy to depopulate this area.” (Menindee engagement session)

“There is a lot of anger and frustration at the politics. Especially at the state governments, especially on the compliance up there.” (Strathalbyn engagement session)

“There will be bloodshed in some communities. The wick is almost lit.” (NBAN engagement session)

“The boiling pressure is palpable and people don’t want to wait, best hope is something from Cabinet by Christmas. We need to compel them to do something.” (Barooga engagement session)

“Need to be more vocal. Governments don’t want us to be empowered.” (MLDRIN engagement session)

“This plan divides Australia and is the antithesis of Australian values. Communities are absolutely confident that their voices won’t be heard – we will never see change. Everything we predicted has gotten even worse.” (Deniliquin engagement session)

We heard many people tell us that governments have failed to provide sufficient leadership and a vision to shape a positive future.

“If the government does not realise the risk of what is coming, it could be catastrophic.” (Loxton engagement session)



"Our community is doing everything they can, the government needs to start to actually show an interest in the community and its members and actually get in and talk to people. They would have no idea what I as a secondary school teacher deal with in a small town. We don't just go to work and come home. In a small town you are expected to go above and beyond in all areas. We all do this." (Survey)

"If we are serious about keeping the Murray/Goulburn Valley areas as the food bowl of the nation, then the government needs to get serious about food security and water security for primary producers because at the moment the area is just becoming a dust bowl." (Survey)

"If it is found that agriculture is not viable in communities like mine then government must provide a contingency plan, it is unacceptable for water reform to occur that knowingly leads to the death of industries and communities." (Survey)

"People feel like there is inconsistency with levels of government and authorities e.g. MDBA effectiveness test is creating additional barriers and less access to water despite federal government saying it would fund increased storage. There needs to be joint delivery from government and agencies (state and federal) of outcomes to the community." (Forbes engagement session)

"Where is the state government in all this? They can't minimise the impact of water reform, but they can help through other channels – we need more from state on this. They are derelict in their duty." (Deniliquin engagement session)

Theme Seven: Changes in water demand and availability are resulting in pronounced changes in land use, with consequences for other industries and regions

Many respondents perceived a direct relationship between low water allocations, high water prices and the decline of their social and economic conditions. The Panel also received information that water users are concerned about how water trade may be increasing third party effects.

"A balance to return productive water to the agriculture industry is needed. This will inject much needed money to the local struggling economy." (Survey)

"Lower or zero water allocation is killing off our once flourishing community, I have lost 15 customers from the dairy industry in the last 12 months. My customers that grow rice are gone. My customers that grow grapes are telling me this will probably be their last season." (Survey)

"Basin governments should set and publish a work plan within the next 12 months that describes how delivery capacity issues and third party effects associated with changes in water use and trade will be investigated and managed." (National Farmers' Federation referencing extract from ACCC Productivity Commission report)

We heard of the current strong market demand and growth in export markets for high value crops. A number of participants expressed grave concern about the significant growing demand for water to support perennial crops driving the cost of water higher, particularly in drier times. Some traditional industries, such as dairy, rice and certain fruits, struggle to compete for water, as do farmers in some established irrigation districts where new enterprises are expanding the irrigation footprint. Areas where local economies rely on these commodities are vulnerable. Examples include the Goulburn Murray Irrigation District (GMID) and Murray Irrigation, which are experiencing pressure as new (often larger, corporate) irrigation enterprises develop in greenfield sites such as Sunraysia, investing in large complex irrigation networks.

"Water reform has really destroyed primary production systems (the optimal ones). Need sunshine, rainfall, irrigation and soil. What has happened in the last decade we have shifted below



the GMID [Goulburn Murray Irrigation District] to the arid zone. There is a thrill from blooming the desert, but it is not being properly used. We have turned away from having primary production systems where they should actually be.” (Shepparton engagement session)

“When you speak to people in GMW [Goulburn Murray Water], they think they would not be able to physically deliver downstream if you had 100 per cent allocations, (because) the Barmah is RAMSAR listed.” (Barooga engagement session)

“Can’t have wholesale irrigation development at the same time as existing irrigation zones are trying to survive. Feel like the irrigation corps are favouring the big ones.” (Coleambally engagement session)

“Some regions are experiencing significant changes in land use and crop types, which influence water use, trade and delivery patterns.” (National Farmers’ Federation referencing extract from ACCC Productivity Commission Report.)

“Greenfield [development] is happening without checks and balances on third party impacts.” (Coleambally engagement session)

“Water has gone to higher value use, and that has been development in new areas.” (Swanhill engagement session)

Many people across the Northern Basin listed water security as a fundamental requirement for the future of their communities. While there was acknowledgement by some that there is no ‘new water’, suggestions and support were raised for government considering opportunities with existing and new infrastructure to improve security and reliability of existing water.

“Burrendong Dam has an additional 400,000 ML of flood mitigation capacity. NSW Water has done a study which shows managers can use half of the flood mitigation area to manage a flood. A one-off impact on the marshes would occur if this extra water was captured during a flood but there would be increased benefits to security for all licence holders, including environment, town water supply and irrigators.” (Warren engagement session)

“Currently missing piece is government’s strategy for irrigation and for our communities – our headwater storages are tiny; we can’t look to diversifying to permanent crops in an unreliable system and we need underlying strength and a stable platform of government services in our community” (Goondiwindi engagement session)

Many southern zone dairy and cropping farmers – particularly in the smaller towns of Finley, Barooga, Cobram, Cohuna, Shepparton surrounds, and Wakool – told us they are exposed to price changes in the water allocation (temporary) market (sometimes due to having sold entitlements to get through the Millennium Drought) and cannot compete with higher ‘dollar per drop’ producers when water availability is low and water prices are high.

“Farms around Murray Valley – this irrigation land is now worth less than land with no irrigation. The value of country has changed demonstrably. The people that purchase these properties are trapped with the infrastructure / network costs. Banks were advising selling permanent water to get money for the farm, it led to a really bad situation.” (Barooga engagement session)

“Corporates are a big threat to community – they don’t contribute to the community and strangle the family farm.” (Balranald engagement session)

In the western zone there was greater variation in perceptions of the impacts of water reform. Some participants in Mildura, Wentworth and Barmera noted that irrigated agriculture in their regions has expanded considerably in recent years, underpinned by secure access to water, and they pointed to ‘unbundling’ and water markets as key mechanisms to manage water scarcity.



“Unbundling has allowed water trading which has been a boon. It has allowed water to move to better and higher uses and for water entitlement holders with difficult to water efficiently holdings to make positive decisions. Carryover has revolutionised how cropping/grazing irrigators manage their entitlement and permitted better utilisation. Goulburn Murray Water has lifted its game and is much more efficient than in years gone by.” (Survey)

Theme Eight: The benefits of environmental flows are not well understood

Water for the environment was an important issue for many people. Some respondents expressed deep concern for the health of the riverine environment.

“My country and my home is on the doorsteps of day zero. The river has been sick and crying out for help for as long as I remember. My mother has seen the river clear and full of fish and platypus in her lifetime. I want to one day see the river with my own eyes back to that standard. It’s not just about managing the water and how it is shared, it’s also about the whole environment which needs to be restored.” (Survey)

“Restore the Darling River and have just a bit of respect for the natural environment that you were supposed to protect and have destroyed in 7 years. Ask yourselves 7 years and billions of dollars of the plan implementation are the rivers in a better or worse condition than before the plan was implemented??” (Survey)

“Fish kills at Balranald are an example of environmental disaster as a result of European management, not Aboriginal people’s management ... Living through the fish kill and seeing the impact on our environment and rivers had a massive bearing on our mental outlook.” (MLDRIN engagement session)

“There will be no water and no wildlife. We have already seen a huge reduction in the past 10 years. We used to have such a beautiful country to be proud of.” (Survey)

“If we do not have environmental water, the condition of the community would plummet ... The health of the community is intimately linked to the health of the river here.” (Strathalbyn engagement session)

A number of respondents felt that the environment was benefitting from allocations of environmental water.

“The recent environmental fish flow had some good outcomes and was welcomed by the community because it had some community outcomes – e.g.: water flow reached Collarenebri. We need to celebrate shared outcomes; however, this is currently not the role of the CEWH or environmental water management.” (Moree engagement session)

“Land used to get water 94 years in 100 years. We fought for years to get water back to environment.” (Balranald engagement session)

“Some of the wetlands are definitely improving, but not sure the wider community really get it and we get shot down for publicising it.” (Griffith engagement session)

However, many respondents said there is little or no evidence of the environmental impacts of environmental watering, and call for more transparency and information.

“We are concerned that water reforms have not demonstrated benefits for the environment commensurate with the impact on communities.” (Tamworth engagement session)

“Community would like to see modelling to show the positive impacts of the water that has been purchased.” (Dirranbandi engagement session)



"People want to understand what makes a healthy river in our area." (Walgett engagement session)

"There is still water getting pumped out – pumping into dead landscapes, 500ML. Where is the economic benefit to Australia from this water? Who is accountable for that?" (Balranald engagement session)

"22000ML of environmental water going down our creek at the moment. They are playing politics with water. We don't sell the environmental benefits and it just adds to the angst of what is going on." (Hay engagement session)

"Still none the wiser on a more scientific approach to environmental water use. We just don't have much clarity on that." (Hay engagement session)

"Environmental water: would like to see it be more accounted for. Transparency and accountability. Want their water use managed and reported." (Wakool engagement session)

"Environmental outcomes would be really great to see – is it environmental water or is it inter-valley transfers?" (Deniliquin engagement session)

"Environmental goals are very fluffy – are they smart goals, are they being measured and how do we know it is working?" (Finley engagement session)

We heard intense frustration from respondents about the management of environmental water by state and Commonwealth government agencies and water holders. Environmental flows are seen by some as out of step with their local community and/or environmental needs. Many feel that environmental water is being mismanaged and is being managed inefficiently. Some believe that the management of environmental water is wasteful and in some cases degrading the very environments they are supposed to enhance, for example through waterlogging and stimulating ecological response processes in the midst of severe drought.

"The Basin is a triple bottom line plan, not an environmental plan." (Griffith engagement session)

"Our farmers' mental and financial wellbeing is being washed down the drain, the drain into forests that do not need watering every year, especially over the prosperity of our farmers. It is hurting the community terribly, farmers are walking off properties, all other businesses are affected." (Survey)

"Environmental flows are supposed to mimic natural events, it's just environmental vandalism. The amount of water going out of Shepparton to the west is ruining things. We are wrecking the whole thing." (Barooga engagement session)

"Change the MDBP and make water more affordable rather than waste it on environmental flows and river flushes." (Survey)

"Take it back to Ministers and ask where do you draw the line on the environment?" (Barooga engagement session).

"We have 2,500 km that are not fit for native fish breeding because of cold water. We have real science on cold water pollution that is not suitable for fish. Huge breed up of European carp. The Barmah forest is like sago with that many European carp eggs. We have witnessed graphic damage from environmental flows." (Cohuna engagement session).

"The farmers are the conservationists and they are not being listened to. The environmental water holder just doesn't know what it is doing with its water." (Hay engagement session)



“Feels like the environmental water holder isn’t using the water in a very ecological way. E.g. the fluctuations – flushing water down the river – is driving a lot of erosion.” (Swan Hill engagement session)

“To add salt into the wounds we are also situated on the doorstep of the Gunbower forest, so we are witnessing the decimation of this iconic site due to environmental watering being done out of season and too frequently!” (Survey)

“Stop wasting it out in the bush – it’s killing the trees and wiping out our little creatures that live and feed on the forest floor.” (Survey)

“Realise that dry years happen and in those times environmental flows need restricting as well. Increase water recycling.” (Survey)

“Environmental water management since reforms has turned what was naturally an ephemeral system into a continuously wet environment which is degrading it... Four years ago, Lake Cumbungi was kept wet with environmental water releases – ibis bred, then there were mass deaths of chicks – found to be botulism. Keeping wetlands wet negatively affects the health of that ecosystem.” (Forbes engagement session)

“There needs to be much more integrity used within water allocations, usage and transparency both within the environment and farming sectors there is also a need to comprehend in Australia rivers do run dry.” (Survey)

“Environment – river ecology and the environment, it socially and economically impacts us, so it is really important. The river is dying, the forests are dying (flows are too high). None of this makes sense – the Plan is destroying natural RAMSAR sites, and the on-farm environments are dying.” (Deniliquin engagement session)

We heard from people in communities along the stretch of the Darling downstream of Bourke who have not seen improvements in low flows despite this being an environmental objective for the Northern Basin from the Basin Plan.

“Have spent my whole life trying to save the river. It is heartbreaking to see inconsistent regulation having an effect on the river.” (Menindee engagement session).

“The Basin Plan has failed to deliver or protect low flows – lack of low flows is a major driver of social issues in the community – Water Sharing Plan triggers don’t meet the need to deliver connectivity and respect provision of basic water rights to townships downstream... Downstream of Bourke there is very little irrigation in the Central Darling Shire – and another 500km of river from Bourke, to Louth, Tilpa, Wilcannia, Menindee. Protection of low flows is paramount for this region. This is a policy failure at water sharing plan level.” (Bourke engagement session)

We also heard from people who raised concerns about the lack of focus on broader natural resource management, with the removal of Catchment Management Authorities in NSW and the structure of current water reforms placing environmental flows as the only mechanism for delivering environmental outcomes.

“We used to have CMAs to measure the health of our catchment at a local level. This included advice about looking after riparian zones, direct funding for non-flow measures that also have a big benefit to river and Basin health. First Nations had a pilot for Cultural access to fish; something they love doing. Now with the TSR leased out it has been fenced and there is no longer access.” (Wee Waa engagement session)

“People noted the opportunities for changed land management practices to achieve environmental outcomes, referring to Baramah – irrigator owned block in the Macquarie Marshes



which has demonstrated what can be done to increase environmental outcomes without adding more water.” (Warren engagement session)

Theme Nine: Lack of connecting infrastructure is further impeding economic development

Public and other transport options, good roads, and the provision of telecommunications and internet services were of concern, with physical and digital connectivity through roads, transport and telecommunications felt by many people we spoke with to be second class and a significant impediment to attracting larger businesses and enabling rurally based businesses to be competitive. Lack of connecting infrastructure is a significant impediment to town and city liveability, precision agriculture, and connectivity to markets and processing sites. Weaknesses in this area were seen to be impediments to businesses and individuals in rural and regional areas of the Basin taking advantage of opportunities.

“Connectivity of telecommunications and internet on farms is a big constraint. In Victoria there is a better model in terms of towers and suppliers.” (Moree engagement session)

“More public transport and access is required – we only have three bus lines. Local connectivity is limited through public transport.” (Warren engagement session)

“Our internet services are very poor which affects our businesses. For example a local cotton trading business has had to link their own data fibre cable in.” (Moree engagement session)

“Rural communities need connectivity – for their own businesses, but also in attracting people to want to come and live and work – access to social media would be seen as a basic service to younger adults now.” (Goondiwindi engagement session)

“A good community is one where everyone has the safe, consistent and affordable access to basic amenities such as water, electricity, roads, health and education services etc.” (North Victorian Irrigation Communities Inc, submission)

“One significant facilitator would be connectivity to inland rail at Curban which allows access for Gilgandra and Coonamble communities. This is another example of local community being locked out of benefits that could flow, when a social licence to build the line across our area has been given, yet the access is still being debated.” (Coonamble engagement session)

“One third of the value of farmers’ grain goes to cover costs of inefficient rail in transporting grain. There is a massive need for public sector investment that focuses on increasing efficiency of rural access to markets, transport, connectivity etc.” (Walgett engagement session)

We also heard some people suggest that opportunities exist for communities to optimise their access to benefits from government projects, tenders and major infrastructure projects such as highway upgrades and the Inland Railway.

“Procurement process for government contracts: The Inland Rail is a major opportunity for the region in terms of local employment and maximising supply chain opportunities. The challenge is how can the community benefit from implementation. Local workforce must get the work, which is a huge challenge as contracts are often given out to larger businesses from outside of town. ARTC [Australian Rail Track Corporation] needs to facilitate a better process” (Moree engagement session)



"Local procurement of services is variable. Local businesses do not go for larger tenders covering multiple towns because it doesn't suit their businesses. But they would like the opportunity to tender for local work (in Bourke). Some local government programs have been successful (for example the paving project under the Community Development Program)." (Bourke engagement session)

"The highway upgrades with 20 overtaking lanes from Gilgandra to QLD are an opportunity, but government contract is for all 20, rather than 1 or 2 – which would allow local councils other local firms to tender for this work and employ locals. There would be work in supporting local contractors to bring up to speed with OHS paperwork requirements etc." (Coonamble engagement session)

Theme Ten: Communication, transparency and data need to be improved

Many people we spoke to believed that data collection, transparency and information sharing are major problems in the Basin. Understanding of the complexities of water reform and its consequences is generally low, and more education, along with better communication, may be needed.

"There needs to be much more integrity used within water allocations, usage and transparency both within the environment and farming sectors there is also a need to comprehend in Australia rivers do run dry." (Survey)

"More education on how the effects of the drought and the Basin Plan affect the farmers and how that impacts on the communities that rely on them." (Survey)

"Most people do not understand water reform. I do not understand water reform. Most people would just assume water reform is some government thing out there." (Murray Bridge engagement session)

"There is a massive misunderstanding and lack of knowledge about what the Basin Plan is about. No one knows what the water is for, or what we're trying to achieve from the environment. There is an international wetland here and people don't understand what the environmental water is targeting / what it's for." (Moree engagement session)

"Government has a responsibility to educate the people impacted. If people do not understand what it means, they will make a decision, and probably a poor decision. With a bit of education and a bit of help, they could end up in a much much better position." (Menindee engagement session)

We heard repeatedly that communities' conditions are being represented by data that is at the wrong scale, out of date and inaccurate. Many people believe that township-level data is essential to inform government policy and investment. The use of Local Government Association and Australian Bureau of Statistics data sometimes masks impacts at the scale of individual communities. Governments need to build capacity (within agencies and the general public) to access, analyse, interpret and report on social and economic data. More accurate and granular data and indicators are needed for monitoring social and economic conditions, and a strong base of evidence needs to be compiled and made accessible to allow for accurate understanding on the impacts of water reform and also more broadly for government policy, planning and investment.

"The socio-economic data regarding Walgett is incorrect. Some areas and issues are not being represented in the data and this is affecting the provision of services and industry development. For example, now many farms are destocking. This suggests current farm productivity but means that future productivity is affected." (Walgett engagement session)



"It would be insightful to look at the towns themselves, rather than Warren Shire. The drop [in population] would be much greater. The true economic health of Warren is being disguised by the solar farm that is under construction. Once it is finished all the businesses will be much quieter."
(Warren engagement session)

"No data for policy makers on economic development basis – e.g. for household income trends, which are the basis driving government policy around economic development, data is concentrated to seven major cities and is contracted by ABS. Need economic data taken at valley and community level. There is also a lack of social data." (Forbes engagement session)

"Government investment expenditure needs to be broken down by postcode to deliver a transparent picture. With the current approach, if a low population area but high production – disadvantaged in terms of government spending, because the data governments use is weighted against lower population communities. It works better in supporting higher population communities with lower productivity." (Coonamble roundtable)

There are particular issues around gathering data in First Nations communities. Participants in the MLDRIN and NBAN engagement sessions believed that census and ABS statistics about their communities are flawed and incorrect, and that there is a critical role in First Nations communities being supported to gather their own data, as well as an issue of intellectual property. Issues with gathering and using data on First Nations communities are not being dealt with.

"Data is both a Cultural and economic asset for Aboriginal people and protected under the United Nations Declaration on the Rights of Indigenous people. When gathering and publishing information, NSWALC [NSW Aboriginal Land Council] recommends that an Aboriginal Governance Framework is co-designed with Aboriginal people and in particular the Aboriginal Land Council Network." (NSW Aboriginal Land Council)

"We are sick of (other) people researching us. We need resources to do the research ourselves in a Culturally acceptable way – including through partnering with academia and research institutions to close the gap in research. Whether it be water or health or whatever else it may be. What happens with findings and recommendations provided during consultations? How will the intellectual and Cultural capital reflected in conversations will be considered and acted on? The government has been collecting data from people for years without demonstrating any outcomes. We need to see the outcomes." (MLDRIN engagement session)

"The ABS used to have an employee who came out and explained what the information was being used for. There are reputational and personal risks for Aboriginal people to do this too – they could be disowned by the community." (MLDRIN engagement session)

"The census. There is a huge undercounting of people. You look at Aboriginal communities, it only captures a few in mainly Aboriginal communities. The data is a big issue. Where you compare a census to a survey, we know it is hugely out. 50-60 per cent." (NBAN engagement session)

"NBAN-MLDRIN adequately resourced to look at our people. To get out there and run our own census of our people. Government supports us to get our own. In Menindee there is 300 kids registers for football. Not that many showing up on the census. So, look for alternative methods for collecting that data." (NBAN engagement session)

We also heard that better data and indicators are needed for monitoring social and economic conditions, including the positive outcomes of water reform and water for the environment. A number of respondents pointed out the need for evidence-based approaches in assessing conditions, taking into account both lived experience and robust social and economic information, and considering the full spectrum of social and economic activity across the Basin.



“Agriculture is far from the only factor in regional development. Across the Basin all forms of agriculture make up just 9 per cent of employment, making it a smaller employer than health, public administration, retail and education.” (The Australia Institute submission)

“While irrigated agriculture is a major contributor to the basin economy, it is by no means the only contributor or even the major contributor, and it is already the recipient of substantial government investment through the Sustainable Rural Water Use and Infrastructure Program (SRWUIP). Other sectors such as dryland agriculture, grazing and tourism, and increasingly government services, are major employers and income generators and at least as important as irrigated agriculture to basin communities.” (Lifeblood Alliance submission)

“We need benchmarking – what is reform shooting for? We need to define targets.” (Mungindi engagement session)

“Some people see a ‘no brainer’ and a clear point of difference for our economy to leverage of the significant investment by state and Commonwealth Governments in water and wetlands in the Gwydir. There is 8,000 ha of wetlands and \$300 million of water. Water is locked up in the dam and our community is losing huge assets as well as missing investment opportunities in land and water. There is much demand for guided Cultural tours.” (Moree engagement session)

Theme Eleven: People living in rural and regional communities want real participation in decision-making

Many people expressed their desire for greater involvement in and influence on decisions that impact them, rather than just more consultation – not just in relation to water policy, but also how governments helped shape and develop their regions. Many are calling for access to information and data, and government support for research, development and extension support.

“We need to change the process of decision-making – departments don’t have skin in the game, need to incorporate local knowledge and expertise into decision-making.” (Goondiwindi engagement session)

“Locals must have a role in decision-making. People who have invested in this area have skin in the game.” (Dirranbandi engagement session)

“People want better opportunities to influence policy in rural areas. We used to have the regional policy officers. Regional managers of departments used to be based locally, which gave them a toe into local knowledge and added to the income stream in the local economy that is not season dependent.” (Moree engagement session)

“We need decentralisation of decision-making to local government to develop local solutions to the problems being faced by Bourke. Self-determination verses working towards someone else’s determination.” (Bourke engagement session)

“The government used to have regional management structures. Government employees were locally based and understood the implications of decisions. Regionalisation is quite expensive, but no one has considered the cost of getting policy wrong.” (Wee Waa engagement session)

“The recent water stakeholder panel for Water Resource Plans only had four local irrigators participating and 21-25 agency staff, none of whom lived in the Lachlan Valley. People no longer local and no longer invested but making decisions which affect our community.” (Forbes engagement session)

“Major challenge is untargeted, wasteful government investment with no say from local community on planning. For example, the police station was built to hold 48 staff, for a town of 1,700. We have had a big upgrade to the high school and have \$9 million allocated to a weir that



is not going to deliver water security in a similar future drought ... This equates to around \$50 - \$60 million being spent in our community that is not hitting the mark.” (Walgett engagement session)

“Dryland councils and communities have previously been ignored, including through Water Sharing Plan consultations and so there is an enormous gap in the historic consultation process and subsequent voice data on which Government has made policy.” (Coonamble engagement session)

We heard from some participants who were burnt out by years of consultation and feel that their experiences and input have not been treated as important in shaping policy. Steps to involve communities in decision-making must ensure that participants have a real say in the decisions that affect them.

“Consultation fatigue, particularly around water, is well-documented. People are also disgusted and demoralised that their concerns are not acted upon by decision-makers. Basin landholders and communities have been under prolonged, extreme financial and mental stress. Under current conditions many can afford neither the time nor travel costs to attend yet another potentially heated, unhelpful and ultimately useless 'tick-a-box' consultation session.” (Sarah Moles submission)

“The panel is receiving far greater resourcing than we receive annually as an organisation.” (MLDRIN engagement session)

“The mental strain of years fighting all forms of government and departments, just to have a fair go at running what were very successful business has taken its toll on everyone. Poor communication from departments with no action has left people exhausted. People are meeting fatigued, giving time out of their failing businesses to have their voice heard and then for no action to ever occur.” (Survey)

“It’s out of our control. We have unsuccessfully tried local government, protests etc. this action needs to come from parliament.” (Survey)

“Government will have to listen to local communities, before it’s too late.” (Survey)

“We have this issue of scientists/policy makers coming up with decisions without talking to the community. It’s incredibly frustrating to have this approach – people looking at us but looking straight through us. Feel the same thing about MDBA.” (Goondiwindi engagement session)



Conclusions

Socio-economic conditions are highly variable across the Basin. While some Basin communities are doing well and are growing as a result of new investment and strong commodity prices, others are very much struggling,

Addressing these challenges and taking advantage of opportunities is possible, but communities may need support to get there, including having the necessary skills and capabilities to adapt. Many communities have been identifying areas in which support might be provided, but not all areas identified are ones that have been proven to work, or and not all of them are areas where government has a role or can act. Government cannot address all calls for assistance and it needs to act fairly and in the national interest.

Priority directions for government

The Panel has identified several preliminary directions that we will explore over the coming months to develop recommendations in our final report.

1. Help build confidence of Basin communities by robustly meeting minimum expectations of community support for any recovery options affecting the remaining consumptive pool

Now that the impact of aspects of water reform and drought are demonstrating areas of the elevated social and economic vulnerability of some Basin communities, it is critical that:

- The 605 GL of Sustainable Diversion Limit programs be delivered in partnership with affected communities. Earning community support for projects is crucial and options not supported by community should be given lowest preference. Should the suite of projects fall short of the 605 GL, more projects should be sought.
- Robust socio-economic neutrality criteria should be rigorously tested and applied.

The panel will further explore:

- The impact of trading off best-fit recovery techniques over an extended period, against meeting deadlines.

2. Support development of a realistic vision for regional communities in the Basin

There is an opportunity to develop a vision for the Basin that reflects the hopes and needs of irrigation-dependent communities and helps them face the future. Opportunities also exist to develop and apply relatively cost-effective and fair means of support through regional development policy and the development of bottom-up, place-based strategies to manage change. It is important that these approaches reflect the aspirations of irrigation-dependent communities, regional areas, and First Nations communities, while recognising the future conditions that Basin communities are likely to face. Such an approach will need to foster and encourage quality local and regional leadership that drives adaptation and resilience; enable improved co-ordination between water, land use and regional development planning; and recognise the best long-term infrastructure locations and solutions in the context of the most probable future climate.

The panel will further explore:

- Developing a vision and strategy for the Basin (using regional planning and adjustment policies rather than water planning instruments) to clarify and work towards shared socio-economic and cultural goals in the Basin.



- Developing and implementing new models for policy development and delivery, including place-based approaches, which genuinely involve local communities in decisions that affect their socio-economic outcomes.

3. Strengthen community engagement and leadership

Due to the intensity and duration of the current drought, many Basin communities are hurting, and trust in policy and institutions is low. In engaging with communities, the purpose and engagement method need to be appropriate for the scale for intervention. To date, reform is being explored through a water lens, and communities experiencing impacts from this and other drivers have no parallel structural change in regional planning and adjustment policies.

Governments must rebuild trust with the Basin's communities and enable and support them to develop their own solutions, based on the values of equality, social justice and social responsibility, acknowledging that each Basin community is different.

The panel will further explore:

- Developing better mechanisms to work in partnership with local communities to understand their concerns, co-develop potential responses, and better explain the benefits and costs of options being considered and how these will be distributed
- Investing in local and regional leaders and leadership to drive community adaptation and resilience
- Addressing deficiencies identified by First Nations communities related to current and future water planning, management and access arrangements.

4. Improve performance and communication of water policy and management

Governments need to perform better and be more responsive in the design and implementation of policy, including better prosecuting the case for change and demonstrating the benefits and outcomes achieved. This includes reflecting more bottom-up, connected and community-directed or co-developed approaches. There are also significant opportunities to improve communication and understanding around existing policy settings to provide greater certainty and help communities plan for the future. Policy and planning deficiencies identified by First Nations communities need to be addressed.

Among other things, the Panel will further explore:

- Improving information and communication about current and agreed future water policy settings
- Benefits and costs of current policies or reforms to achieve economic, environmental and social outcomes, and how these are distributed
- Implications of policy settings, such as how industries and communities adapt
- Improving water policy and management implementation by building processes and requirements for greater collaboration and information sharing between state and federal agencies
- Better managing any unintended social or economic consequences of reform implementation or substantive changes in policy settings
- Addressing deficiencies identified by First Nations communities related to current and future water planning, management and access arrangements



- Genuine engagement and involvement in water planning processes and having voice
Supporting Cultural access to water by First Nations people
- Developing effective governance for First Nation water holdings.

5. Improve the collection, management and communication of information and data

Data is not sufficiently granular to accurately reveal conditions and impacts being felt at local levels within Basin communities, and there is a lack of socio-economic data related to First Nations communities. Improving the currency of data and other information and monitoring improvements could improve decision-making by communities and policy makers. In particular, information about the implications of climate change, the likely future availability of water across different regions or water systems, and the probability of drought, would assist greatly in planning, as would improved land use data.

The panel will further explore:

- Improving socio-economic data collection and reporting in the Basin, as communities believe it is out of date and inaccurate
 - Better understanding the divergences or differences in socio-economic conditions across the Basin
 - Addressing gaps in understanding of socio-economic conditions in First Nation communities and ensuring those communities are active participants in associated processes
 - Building capacity to access, analyse and report on social and economic data, including amongst government and the general public
- Addressing key information gaps that support better water management related decision-making for water users, and water policy or planning professionals
 - Land use data (e.g. crop types, locations, and extent and changes from season to season) including the nature and distribution of annual and perennial crops
 - Water availability, risks to water delivery, and climate forecasting
 - Entitlement reliability and implications of future climate scenarios
 - Sufficiently fine-scale future climate data to enable effective future planning of irrigation footprints and determining the most beneficial locations and forms of infrastructure.

6. Develop/refine appropriate responses to declining physical and mental health

Current conditions are extremely challenging for many irrigation industries and dependent communities. The Panel observed some challenging and distressing situations in some communities during its consultations, including issues associated with mental and physical wellbeing. The Panel acknowledges there have already been a number of responses by governments to address immediate or near-term challenges exacerbated by drought.

The panel will further explore:

- Continuing to address short-term acute impacts of the most recent drought through existing commitments, while further developing or continuing to support longer-term drought preparedness policy or measures, including:
 - Considering how to resolve the current gap in attracting and then holding frontline, experienced staff in rural communities



- Improving water security planning and investment for Basin towns or cities, including:
 - Better supply and demand forecasting and planning
 - Consideration and assessment of all viable town water supply options (including all options being on the table)
 - Effective and timely investment decision-making based on robust assessments of all costs and benefits for different options
 - Better meeting the needs of First Nations communities.

7. Improve regional infrastructure and provision of services

Extensive research has consistently shown that one of the most effective ways to support and stimulate regional communities and economies lies in investment in connectivity. Helping Basin communities to be much better connected to markets, research, cities, and health and education providers will help them both broaden their economic base, and become more efficient producers. Accelerated investment in road and rail, as well as digital connectivity (with a strong focus on local procurement), will deliver economic stimulus and employment opportunities through the construction period, and deliver long-term liveability and efficiency/productivity dividends to regional communities.

The panel will further explore:

- Investing in transport infrastructure that will address liveability in rural and regional towns and cities, enhance industry productivity and facilitate the connection of production with processing sites and markets
- Accelerating enhancements to digital connectivity.

8. Invest in RD&E to support productivity, manage risks and develop new markets

Australian agricultural productivity gains in key vulnerable sectors are falling, there have been reductions or major cuts to research, development and extension, and there is a view in many communities that Australia will fail to compete into the future if it does not lift its performance and adapt to a lower water future. Addressing these deficiencies could provide a 'bottom-up' opportunity to engage the irrigation and agriculture sector and help it better manage change.

The panel will further explore:

- Investing in, recommitting to, or otherwise supporting, RD&E for irrigated and dryland agriculture in the Basin, with a specific requirement to focus on innovation and adaptation to lower water futures and likely future climate scenarios

This could include local agriculture extension services, independent of industry, that help farmers manage risk, and R&D investment that supports collaborative, multi-disciplinary, integrated approaches to water and land management.



Next steps: our second phase of consultation

This progress report captures what we heard of the lived experiences of people in the Basin who chose to attend a face-to-face meeting, write a submission, or fill out an online survey. It captures the major themes in what we heard, and begins shaping the directions of our final recommendations. Our conversations with people living the Basin have helped us with this preliminary response. It is only part of the picture we are building and the conclusions and recommendations we will eventually make.

Our consultation will continue in early 2020, as will our analysis of what we have heard from communities, supported by an ongoing review of other research into Basin communities.

We will be releasing four literature reviews in late 2019:

- *CSIRO Literature Review 3: Community Adaptation and Resilience* by Nicola Grigg, Deborah O'Connell and Michael Dunlop. This paper reviews programs and initiatives that have been implemented in the Murray-Darling Basin in order to address the question: What strategies have the greatest potential to enhance the resilience, adaptability and wellbeing of Basin communities?
- *Literature Review Supporting the Independent Assessment of Economic and Social Conditions in the Murray-Darling Basin: A Marsden Jacob Discussion Paper*. This is a review of economic assessments of Basin communities, and Basin water reforms concentrating on the economic and social impacts of Basin water reforms over the past decade.
- *Wellbeing, resilience and adaptive capacity: A review of current knowledge of social conditions in the Murray-Darling Basin* by Jacki Schirmer, Lain Dare and Melinda Mylek, University of Canberra.
- *Literature review on the economic policies and conditions in the Murray Darling Basin* by Professor Robert Tanton and Dr Yogi Vidyattama, The National Centre for Social and Economic Modelling (NATSEM)

We have also commissioned specific research as part of our investigations:

- *Murray-Darling Basin water markets: trends and drivers 2002-03 to 2018-19* by ABARES (Tim Goesch, Peter Legg and Manannan Donoghoe)
- *Indigenous water in the Murray-Darling Basin* by Marsden Jacob Associates (Jeremy Cheesman and Stuart MacLachlan)
- *Northern Basin Supplementary Commentary* by Marsden Jacob Associates (Jeremy Cheesman and Stuart MacLachlan)
- *Urban Water in the Murray-Darling Basin* by Marsden Jacob Associates (Jeremy Cheesman and Stuart MacLachlan)
- *Rice in the Riverina* by Marsden Jacob Associates (Gavan Dwyer, Matthew Clarke and Jeremy Cheesman)
- *Dairy in Northern Victoria* by Marsden Jacob Associates (Gavan Dwyer, Matthew Clarke, Makere Hurst and Jeremy Cheesman)
- *Recreational fishing in the Murray-Darling Basin* by Marsden Jacob Associates (Jeremy Cheesman, David Rogers and Stuart MacLachlan)
- *Recreational boating in the Murray-Darling Basin* by Marsden Jacob Associates (Jeremy Cheesman, David Rogers and Stuart MacLachlan)
- *Cotton in the Northern Basin* by Marsden Jacob Associates
- *Horticulture below the Barmah Choke* by Marsden Jacob Associates



- *Integrated economic modelling of future water recovery and climate change scenarios in the Murray-Darling Basin* by Marsden Jacob Associates (Gavan Dwyer and Jeremy Cheesman), ABARES (Neal Hughes and Mihir Gupta) and Victoria University (Glyn Wittwer)
- *Future irrigation activity in the Murray-Darling Basin under scenarios of water recovery and climate change* by ABARES (Neal Hughes and Mihir Gupta)
- *Regional economic modelling of future water recovery in the Murray-Darling Basin* by Victoria University (Glyn Wittwer)
- *Social conditions and wellbeing in the Murray-Darling Basin* by University of Canberra (Jacki Schirmer, Melinda Mylek and Dominic Peel)

These important reviews and studies will help the Panel develop our final insights and recommendations.

The next step is writing a draft report (by the end of February 2020), and inviting public comment by submission and/or face-to-face meetings (during March 2020). We will consider the responses to the draft report, and produce a final report before mid-2020 responding to the Terms of Reference.



Appendix A: Terms of reference

Following submissions and advice from Basin stakeholders on the initial terms of reference, the Panel adopted the following terms of reference:

- A. The review will provide an independent assessment of social and economic conditions in rural and regional communities across the Murray-Darling Basin.
- B. The review will assess impacts (positive and negative) of water reforms, including the Basin Plan, on the vulnerability, resilience and adaptive capacity of Murray-Darling Basin communities and their development potential. This will include consideration of social and economic impacts of the environmental effects of water reforms.
- C. The review will consider ongoing structural changes influencing different communities in the Murray-Darling Basin, and seek to separate the effects of these trends, and events such as drought, from the effects of water reform, including the Basin Plan.
- D. The review will support longer-term efforts to monitor and understand social and economic conditions in the Basin, and the impact (positive and negative) of water reform on different communities in the Murray-Darling Basin. This will be used by governments and leaders to help understand the outcomes of water reform, including the Basin Plan. However, this is not a review of the Basin Plan.
- E. The work of the Panel will explore a range of options that stimulate, support and promote healthy and sustainable rural and regional communities in the Basin.

We have also considered the feedback of stakeholders in adopting the following Assessment Framework questions to shape this review:

1. What are the visions and hopes of Basin people for themselves and their communities?
2. What have been the social and economic experiences of different Basin communities, relative to other rural and regional communities in Australia, and what have been the main drivers of these experiences?
3. What are expected to be the most significant drivers of future change, opportunity, and risk for different Basin communities?
4. What has been the impact (positive and negative) of water reform on different Basin communities to date, including relative to other drivers of change? What future changes and impacts are likely?
5. Are there thresholds for maintaining the viability of different Basin communities, in the context of water reform and other drivers of change? If so, what are these thresholds and what do they imply for these communities, governments, and other actors?
6. What strategies have the greatest potential to enhance the resilience, adaptability and wellbeing of different Basin communities?
7. What are the responsibilities and distinctive contributions of governments, industry, non-profit groups, First Nations, communities and individuals in enabling action to promote prosperous and sustainable Basin communities?



Appendix B: List of submissions received

Submissions that agreed to being published on the website. To see individual submissions please go to <https://www.basin-socio-economic.com.au/submissions>

Organisation/individual	Name
Alfred Heuperman	Alfred Heuperman
Almond Board of Australia	Ross Skinner
Amaloo Pastoral Company	Ryan Vagg
Amanda Barlow	Amanda Barlow
Anon	Anon
Australian Dairy Industry Council	Craig Hough
Australian Local Gov Association	
Bernice Lumsden	Bernice Lumsden
Border Rivers Food & Fibre	Tim Napier
Cathy Merchant	Cathy Merchant
Citrus Australia	Nathan Hancock
Coleambally Irrigation Cooperative Ltd	
Cotton Australia	Michael Murray (1)
Cotton Australia	Michael Murray (2)
Country Women's Association of NSW	
Cris Piper	Cris Piper
David	David
Dried Fruit Australia	Anne Mansell
Environment Victoria on behalf of Lifeblood Alliance	Juliet Le Feuvre
Garner Smith	Garner Smith
Griffith Business Chamber	Paul Pierotti
Gwydir Valley Irrigators Association Inc (GVIA)	
Hayley Purbrick	Hayley Purbrick
Healthy Rivers Dubbo	Melissa Gray
Ian Fisher	Ian Fisher
Inland Rivers Network	
Jan Beer	Jan Beer
Jane Middlebrook	Jane Middlebrook
Jim Wilton	Jim Wilton
John Cooke	John Cooke
Lawrie Flanagan	Lawrie Flanagan
M Grubb	M Grubb
Macquarie Marshes Environmental Landholders Association	Gary Hall
Margaret Bray	Margaret Bray
Mark Merritt	Mark Merritt
Matthew Ireson	Matthew Ireson
Meaghan Whan	Meaghan Whan
Michael Young	Michael Young



Organisation/individual	Name
Murray Lower Darling Rivers Indigenous Nations (MLDRIN)	MLDRIN
Moree Shire Council	Susannah Pearse
Murray Darling Association (MDA)	Emma Bradbury
Murray Regional Strategy Group	Alan Mathers
Murrumbidgee Council	John Scarce
National Farmers Federation (NFF)	
National Irrigators Council	Steve Whan
National Parks Association of NSW	Gary Dunnett
New South Wales Aboriginal Land Council	Nathan Frank
North Victorian Irrigation Communities Inc	Anita Seiter
NSW Environmental Defenders Office	
NSW Irrigators Council	
Partner Hehir farms	Jennie Hehir
Peter Lamb	Peter Lamb
Progress Printing	Jeremy Voss
Quentin Grafton	Quentin Grafton
Regional Development Australia Hume	Susan Benedyka - Chair, RDA Hume (1)
Regional Development Australia Hume	Susan Benedyka - Chair, RDA Hume (2)
Ricegrowers' Association of Australia	Rachel Kelly
Riverina Agriculture	Lachlan and Ellie Danckert
Robyn Wheeler	Robyn Wheeler
Rodney Chalmers	Rodney Chalmers
Ron McWhae	Ron McWhae
Ron McWhae	Ron McWhae
Rural City of Murray Bridge	Michael Shillabeer
Sarah Moles	Sarah Moles
Stephen Brooks	Stephen Brooks
Taggle Systems	Steve Hall
The Australia Institute	Rod Campbell
Urupna Pty Ltd	Bridget Goulding
University of Adelaide	Adam Loch
Victorian Farmers Federation (VFF)	Natalie Akers
William Morgan	William Morgan



Appendix C: Stakeholder engagement sessions

	Location	Date	Event
1.	Griffith	30-Sep	Roundtable
2.	Coleambally	30-Sep	Roundtable
3.	Deniliquin	30-Sep	Roundtable 1
4.	Deniliquin	1-Oct	Roundtable 2
5.	Hay	1-Oct	Public drop-in
6.	Balranald	1-Oct	Public drop-in
7.	Swan Hill	2-Oct	Roundtable
8.	Wakool	2-Oct	Roundtable 1
9.	Wakool	2-Oct	Roundtable 2
10.	Finley	3-Oct	Public drop-in
11.	Shepparton	3-Oct	Public drop-in
12.	Shepparton	3-Oct	Round table
13.	Barooga	4-Oct	Public drop-in
14.	Cohuna	4-Oct	Public drop-in
15.	Mildura	7-Oct	Public drop-in
16.	Mildura	7-Oct	Roundtable
17.	Menindee	8-Oct	Roundtable 1
18.	Menindee	8-Oct	Roundtable 2
19.	Wentworth	9-Oct	Public drop-in
20.	Wentworth	9-Oct	Roundtable
21.	Barmera	10-Oct	Round table
22.	Loxton	10-Oct	Public drop-in
23.	Murray Bridge	10-Oct	Round table 1
24.	Murray Bridge	11-Oct	Round table 2
25.	Strathalbyn	11-Oct	Round table
26.	Goondiwindi	14-Oct	Roundtable 1
27.	Goondiwindi	14-Oct	Roundtable 2
28.	Dirranbandi	14-Oct	Roundtable
29.	Mungindi	15-Oct	Roundtable
30.	Moree	15-Oct	Roundtable
31.	Walgett	16-Oct	Roundtable
32.	Bourke	16-Oct	Roundtable
33.	Bourke	16-Oct	Public drop-in
34.	Warren	17-Oct	Roundtable 1
35.	Warren	17-Oct	Roundtable 2
36.	Coonamble	17-Oct	Roundtable
37.	Wee Waa	18-Oct	Roundtable
38.	Moree	18-Oct	Public drop-in
39.	Forbes	21-Oct	Roundtable



Appendix D: Other stakeholder meetings

Date	Event	Organisation	Location	Stakeholder category	Panel member
30-May-19	Meeting	National Farmers Federation	Teleconference	Agriculture	Robbie Sefton
31-May-19	Presentation	MDBA Basin and Eggs Breakfast Event (various community stakeholders)	Griffith	Agriculture	Robbie Sefton
19-Jun-19	Meeting	Namoi Cotton	Teleconference	Agriculture	Robbie Sefton
20-Jun-19	Meeting	St James Ethics Centre	Teleconference	Education/Healthcare	Robbie Sefton
21-Jun-19	Meeting	Regional Australia Institute	Teleconference	Education/Healthcare	Robbie Sefton
26-Jun-19	Presentation	St James Ethics Centre	Canberra	Education/Healthcare	Panel
26-Jun-19	Presentation	ABARES	Canberra	State and Federal Government	Panel
26-Jun-19	Presentation	Regional Australia Institute	Canberra	Education/Healthcare	Panel
26-Jun-19	Presentation	CSIRO	Canberra	State and Federal Government	Panel
26-Jun-19	Presentation	University Canberra	Canberra	Education/Healthcare	Panel
28-Jun-19	Meeting	Community member	Teleconference	Agriculture	Robbie Sefton
4-Jul-19	Presentation	NSW Irrigators Council	Teleconference	Agriculture	Robbie Sefton
10-Jul-19	Meeting	University of Canberra	Teleconference	Education/Healthcare	Robbie Sefton
11-Jul-19	Meeting	MDBA Basin Community Committee	Teleconference	Basin community	Robbie Sefton
19-Jul-19	Meeting	National Farmers Federation	Canberra	Agriculture	Panel
19-Jul-19	Meeting	National Irrigators Council	Canberra	Agriculture	Panel
19-Jul-19	Meeting	Murray Darling Association	Canberra	Local Government	Panel
19-Jul-19	Meeting	Northern Basin Aboriginal Nations	Canberra	First Nations/Indigenous	Panel
19-Jul-19	Meeting	Commonwealth Environmental Water Holder	Canberra	Environment	Panel
19-Jul-19	Meeting	CEO Rural Health	Canberra	Education/Healthcare	Panel
19-Jul-19	Meeting	ABARES	Canberra	State and Federal Government	Deborah Peterson
30-Jul-19	Presentation	Murray Darling Association	Euston	Local Government	Deborah Peterson Andrew Kassebaum
31-Jul-19	Meeting	MDBA Basin Community Committee	Canberra	State and Federal Government	Michelle Ramsay Robbie Sefton
1-Aug-19	Presentation	Ricegrowers Australia	Corowa	Agriculture	Bruce Simpson
15-Aug-19	Presentation	Border Rivers Food and Fibre	Goondiwindi	Agriculture	Michelle Ramsay
19-Aug-19	Meeting	Mental Health Alliance Group	Deniliquin	Education/Healthcare	Robbie Sefton
20-Aug-19	Meeting	Murray Irrigation Limited	Deniliquin	Agriculture	Robbie Sefton
5-Sep-19	Meeting	Big Sky Ideas	Teleconference	Community Member	Robbie Sefton



Date	Event	Organisation	Location	Stakeholder category	Panel member
10-Sep-19	Meeting	Victorian Department of Environment, Land, Water and Planning	Teleconference	State and Federal Government	Robbie Sefton
11-Sep-19	Presentation	MDBA Basin Community Committee	Canberra	Basin community	Robbie Sefton
13-Sep-19	Meeting	Ricegrowers Australia	Teleconference	Agriculture	Robbie Sefton
2-Oct-19	Presentation	Local Government NSW	Sydney	Local Government	Robbie Sefton
4-Oct-19	Meeting	Batescrew Pump	Teleconference	Agriculture	Robbie Sefton
4-Oct-19	Meeting	Parkes Shire Council	Teleconference	Local Government	Robbie Sefton
14-Oct-19	Meeting	Australian Competition and Consumer Commission	Canberra	State and Federal Government	Robbie Sefton
15-Oct-19	Roundtable	Northern Basin Aboriginal Nations	Toowoomba	First Nations/ Indigenous	Rene Woods Deborah Peterson
17-Oct-19	Presentation	National Irrigators Council	Canberra	Agriculture	Andrew Kassebaum
18-Oct-19	Presentation	Murray Lower Darling Rivers Indigenous Nations	Teleconference	First Nations/ Indigenous	Rene Woods
20-Oct-19	Meeting	NSW Local Land Services and NSW Office of Regional Economic Growth	Dubbo	State and Federal Government	Michelle Ramsay Robbie Sefton
23-Oct-19	Presentation	Murray Darling Association	Toowoomba	Local Government	Andrew Kassebaum
24-Oct-19	Meeting	Indigenous Land and Sea Corporation	Sydney	First Nations/ Indigenous	Robbie Sefton
25-Oct-19	Meeting	Gleeson Excavating	Teleconference	Business	Robbie Sefton
29-Oct-19	Meeting	Department of Agriculture	Canberra	Agriculture	Robbie Sefton
31-Oct-19	Presentation	Commonwealth Environmental Water Holder; Murray-Darling Basin Authority	Canberra	State and Federal Government	Panel
31-Oct-19	Presentation	Commonwealth Department of Agriculture and Water Resources	Canberra	State and Federal Government	Panel
31-Oct-19	Presentation	MDB Inspector General	Canberra	Agriculture	Panel
31-Oct-19	Presentation	SunRice	Canberra	Agriculture	Panel
1-Nov-19	Roundtable	Murray Lower Darling Rivers Indigenous Nations	Melbourne	First Nations/ Indigenous	Rene Woods
8-Nov-19	Meeting	One Basin CRC	Teleconference	Agriculture	Robbie Sefton
13-Nov-19	Meeting	NSW Aboriginal Land Council	Sydney	First Nations/ Indigenous	Rene Woods
13-Nov-19	Meeting	Queensland Department of Natural Resources, Mining and Energy	Teleconference	State and Federal Government	Michelle Ramsay
20-Nov-19	Presentation	Basin Officials Committee	Dubbo	State and Federal Government	Robbie Sefton
28-Nov-19	Roundtable	Ricegrowers Australia	Jerilderie	Agriculture	Bruce Simpson David McKenzie
5-Dec-19	Meeting	Lifeblood Alliance	Teleconference	Environment	Robbie Sefton Michelle Ramsay Bruce Simpson

Introduction

Participating in the survey will help the Panel to understand how people perceive the current social and economic health of their communities, and to identify the major opportunities and challenges facing Basin communities. The survey should take between 10-30 minutes, and your answers will be anonymous.

If you are feeling distressed or need assistance, you can contact the following services for assistance, 24 hours a day: **Beyond Blue - 1300 22 4636** or **Lifeline - 13 11 14**

Your Community's Experience

- Open field (300 word maximum)*

- Open field (300 word maximum)*

- 2. Looking back over the last 10 years in your community, how have the following been changing?**

[illegible]



The local landscape and surrounds in this community are...	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Community participation in sport and recreation is....	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Young people staying / coming back to the community...	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Relative to other similar communities, conditions in my community are...	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Effective local leadership is....	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Effective state and national leadership is ...	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Effective (agriculture or irrigation) industry leadership is...	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Accurate media coverage about rural communities is....	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Access to water is ...	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

3. The impacts of water management and reform on your community:

a) In what ways has the management of water supplied for agriculture, recreation, the environment and domestic use changed for the BETTER in your community in the last 10 years?

Open field (500 word maximum)

b) In what ways has the management of water supplied for agriculture, recreation, the environment and domestic use changed for the WORST in your community in the last 10 years?

Open field (500 word maximum)

4. What actions and changes are needed to help ensure your community is a great place to live in 10 years' time?

Open field (300 word maximum)

5. What are the most significant challenges that may get in the way of your community being a great place to live in ten years' time?

Open field (300 word maximum)

6. Thinking about your answers to the last two questions, what actions and roles can different groups in your community (e.g. government, local businesses, community groups etc.) have in helping ensure your community is a great place to live?

Open field (500 word maximum)



Demographic questions

Where do you live?	State / territory you live in: e.g. VIC, SA _____ Rural locality, town or suburb you live in: _____ Postcode you live in: _____
Do you have more than one residence?	<input type="radio"/> Yes <input type="radio"/> No
Is the place where you live most or all of the time: <i>Select one</i>	<input type="radio"/> In a town, suburb or village <input type="radio"/> On a farm <input type="radio"/> On a rural property not used for farming
How many years have you lived in your current community? <i>Include the total time, even if you've shifted houses within the same community</i>	Years: _____

1. What is your age?

- | | |
|--------------------------------|-------------------------------|
| <input type="radio"/> Under 18 | <input type="radio"/> 46 - 55 |
| <input type="radio"/> 18 - 24 | <input type="radio"/> 56 - 65 |
| <input type="radio"/> 25 - 35 | <input type="radio"/> 66-75 |
| <input type="radio"/> 36 - 45 | <input type="radio"/> Over 76 |

2. What is your gender?

- | | |
|------------------------------|---|
| <input type="radio"/> Female | <input type="radio"/> Other |
| <input type="radio"/> Male | <input type="radio"/> Prefer not to say |

3. If you are employed, in which sector do you work? what is your occupation?

- | | |
|--|---|
| <input type="radio"/> Agriculture, Forestry and Fishing | <input type="radio"/> Financial and Insurance Services |
| <input type="radio"/> Mining | <input type="radio"/> Rental, Hiring and Real Estate Services |
| <input type="radio"/> Manufacturing | <input type="radio"/> Professional, Scientific and Technical Services |
| <input type="radio"/> Electricity, Gas, Water and Waste Services | <input type="radio"/> Administrative and Support Services |
| <input type="radio"/> Construction | <input type="radio"/> Public Administration and Safety |
| <input type="radio"/> Wholesale Trade | <input type="radio"/> Education and Training |
| <input type="radio"/> Retail Trade | <input type="radio"/> Health Care and Social Assistance |
| <input type="radio"/> Accommodation and Food Services | <input type="radio"/> Arts and Recreation Services |
| <input type="radio"/> Transport, Postal and Warehousing | <input type="radio"/> Other Services |
| <input type="radio"/> Information Media and Telecommunications | |

4. If you work in the agricultural industry, what type of agriculture are you employed in?

- ☐ Dryland agriculture
- ☐ Irrigated agriculture
- ☐ I do not work in agriculture
 - Nursery and Floriculture Production
 - Mushroom and Vegetable Growing
 - Fruit and Tree Nut Growing
 - Sheep, Beef Cattle and Grain Farming
 - Other Crop Growing
 - Dairy Cattle Farming



- Poultry Farming
- Deer Farming
- Other livestock Farming
- I do not work in agriculture

Open question

5. Is there anything else you would like to tell the Panel?

Open field (500 words maximum)

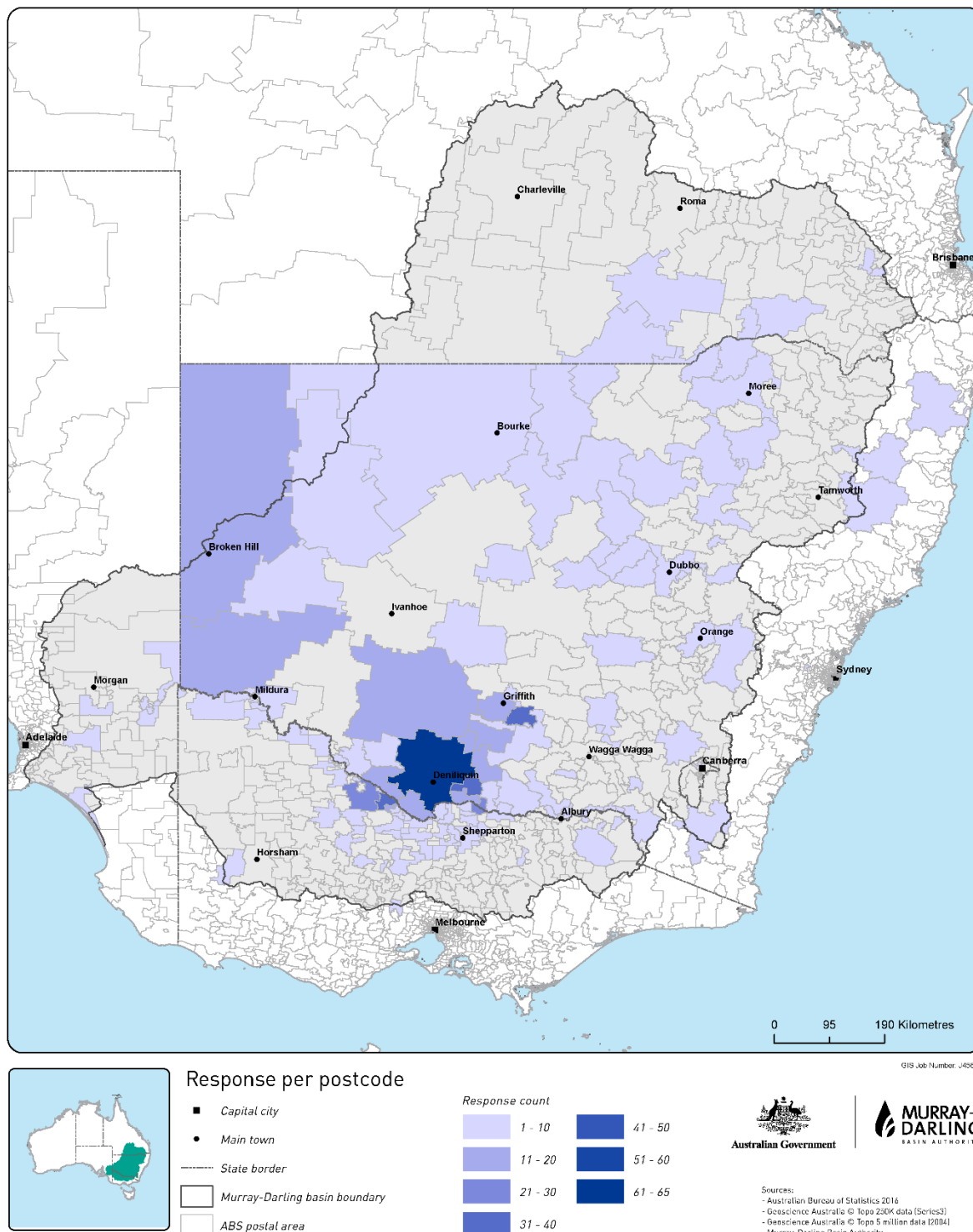
Thank you for taking time to participate in this survey. Your responses are important for the Panel to build a local understanding of what is happening in your community.

Your answers will be read, analysed and along with other consultation processes will help the Panel to understand how people perceive the current social and economic health of their communities, and to identify the major opportunities and challenges facing Basin communities. A preliminary report is due in December 2019, with a final report due in April 2020.

If you have additional comments or questions, please visit the Independent Panel's website www.basin-socio-economic.com.au



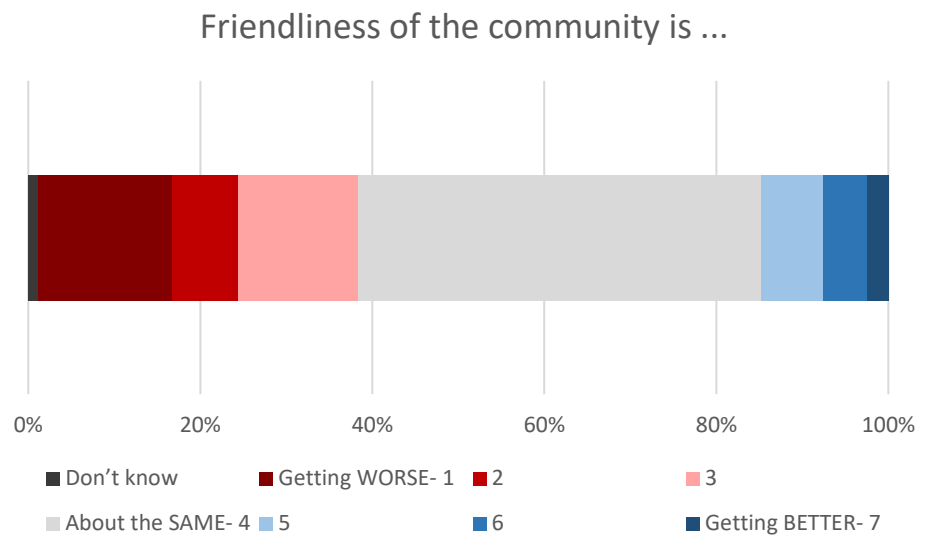
Figure 1 Appendix E: Online survey response rates per postcode



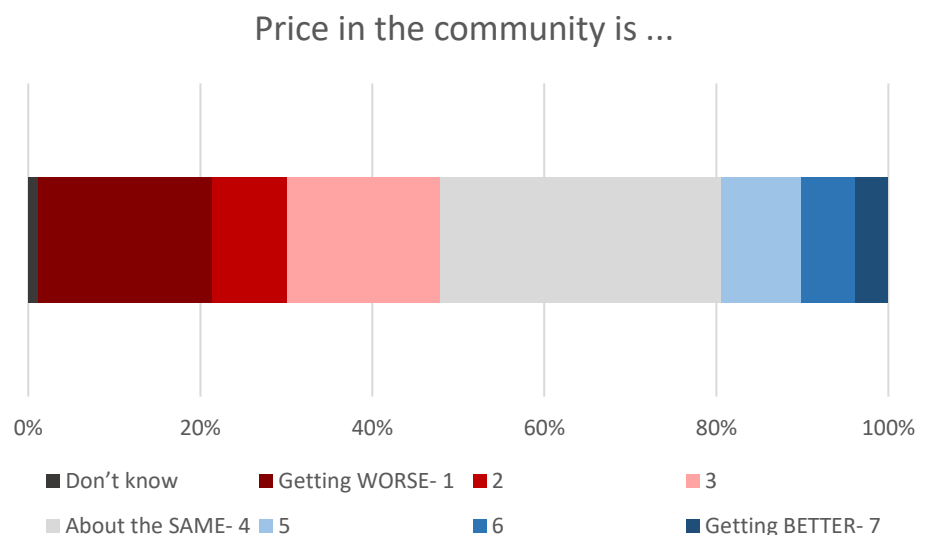


Appendix F: Online survey response charts

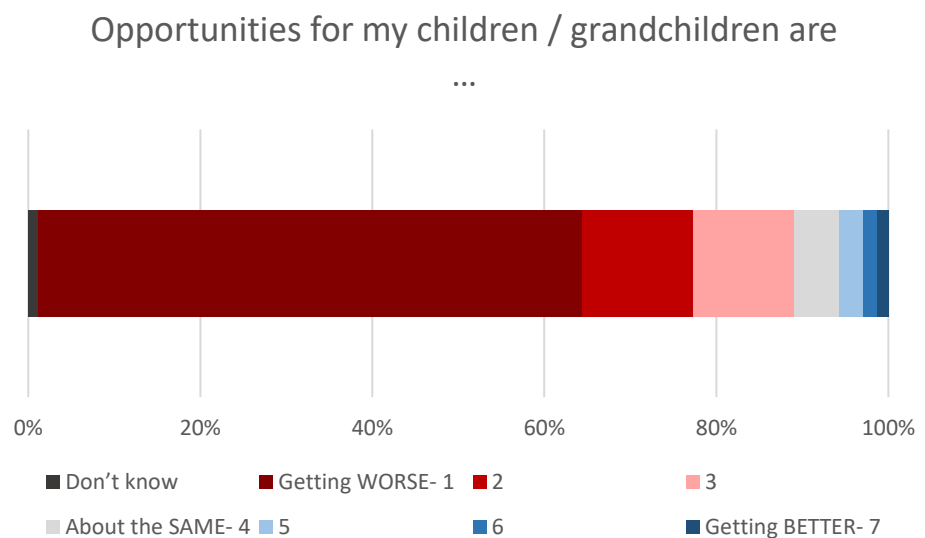
Q4 (2) Looking back over the last 10 years in your community, how have the following been changing?)
The friendliness of this community is...



Q4 (2) Looking back over the last 10 years in your community, how have the following been changing?)
Pride in the community...



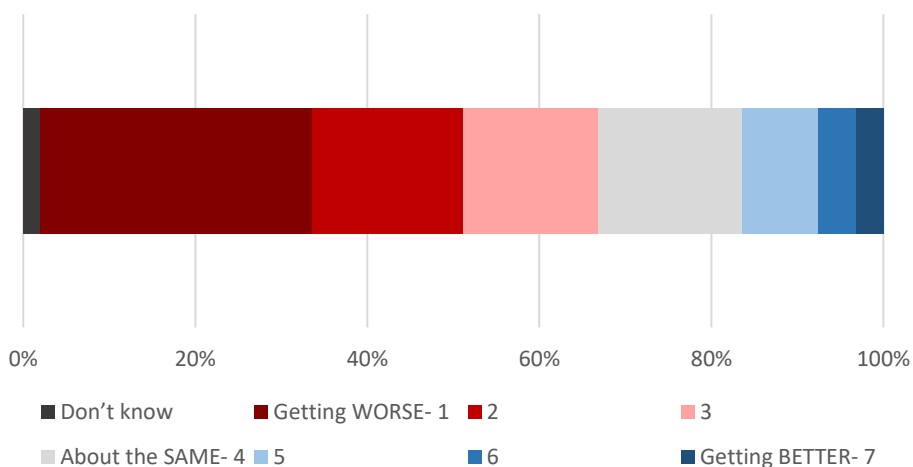
Q4 (2) Looking back over the last 10 years in your community, how have the following been changing?)
Opportunities for my children / grandchildren are





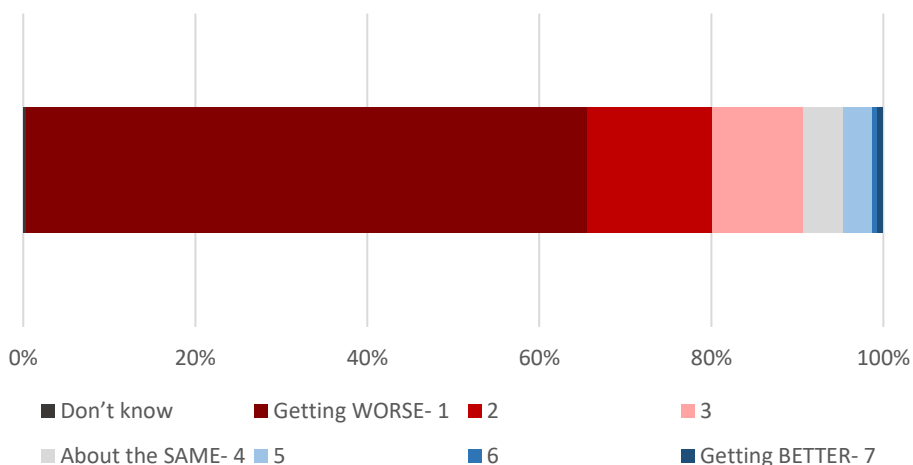
Q4 (2) Looking back over the last 10 years in your community, how have the following been changing?)
Entrepreneurial thinking and activities are

Entrepreneurial thinking and activities are



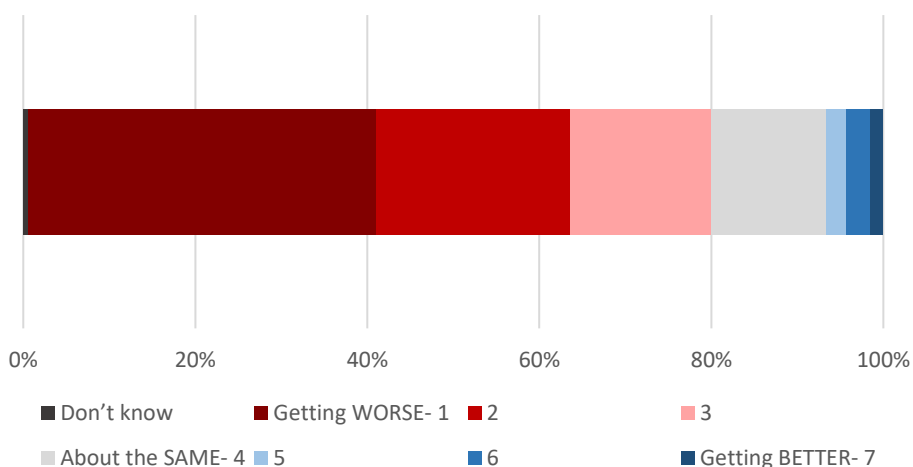
Q4 (2) Looking back over the last 10 years in your community, how have the following been changing?)
The local economy is...

The local economy is ...



Q4 (2) Looking back over the last 10 years in your community, how have the following been changing?)
The liveability of this community is...

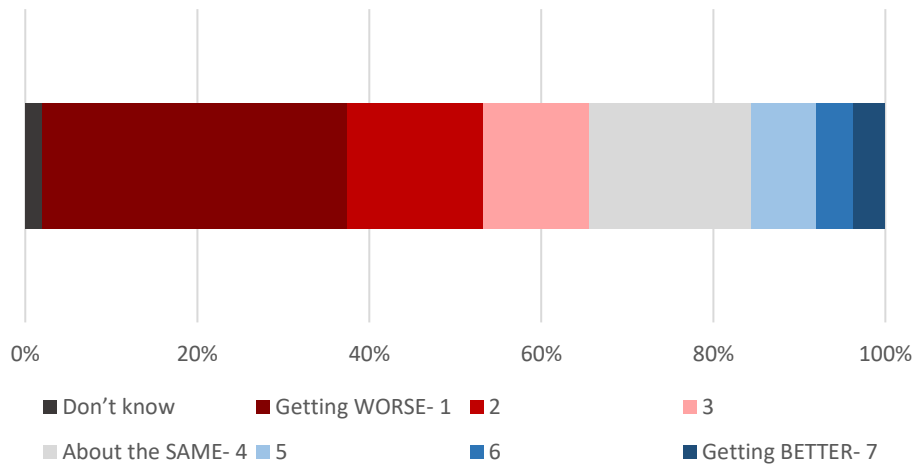
The liveability of this community is ...





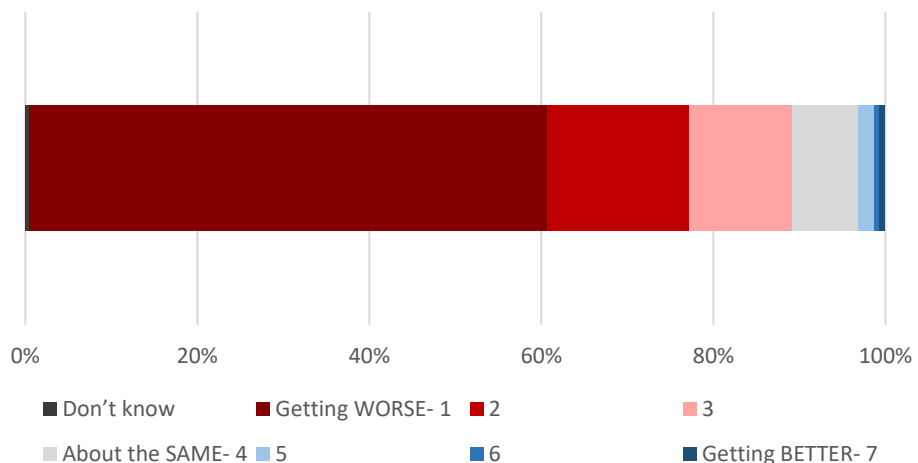
Q4 (2) Looking back over the last 10 years in your community, how have the following been changing?)
Access to health and mental health services is...

Access to health and mental health services is ...



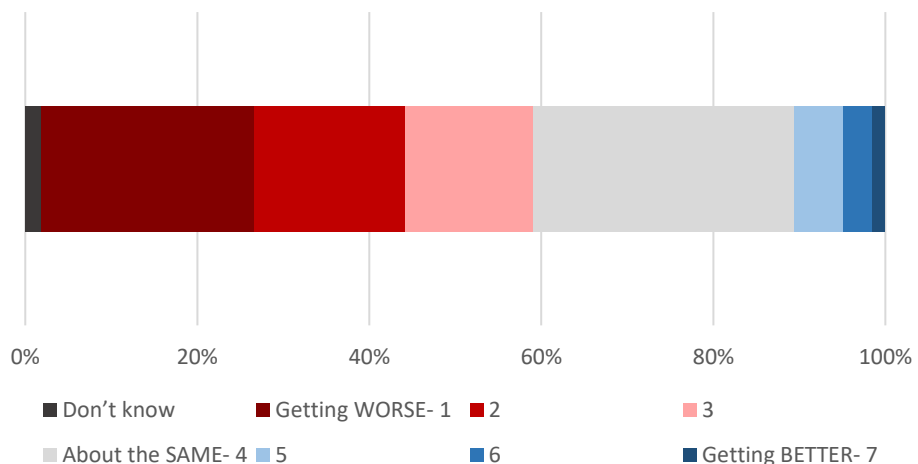
Q4 (2) Looking back over the last 10 years in your community, how have the following been changing?)
Availability of local jobs is...

Availability of local jobs is ...



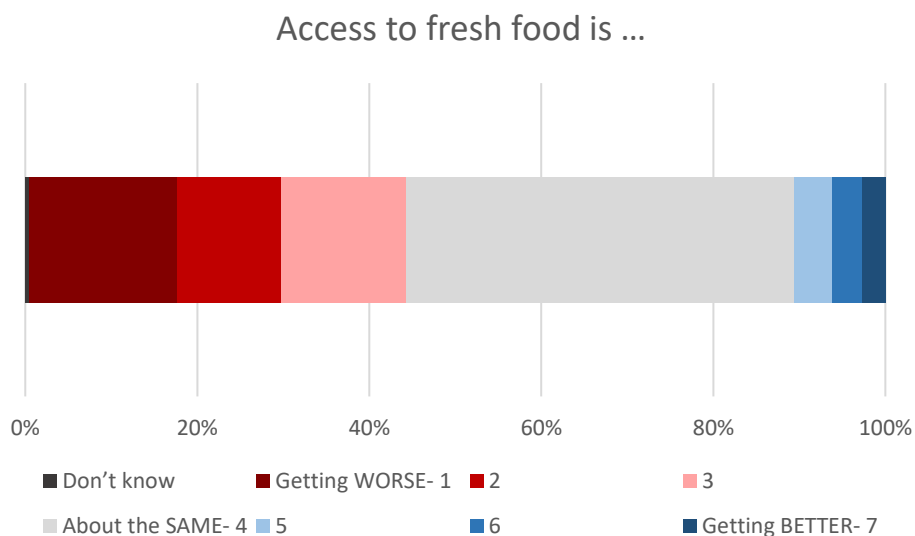
Q4 (2) Looking back over the last 10 years in your community, how have the following been changing?)
Access to education and training is...

Access to education and training is ...

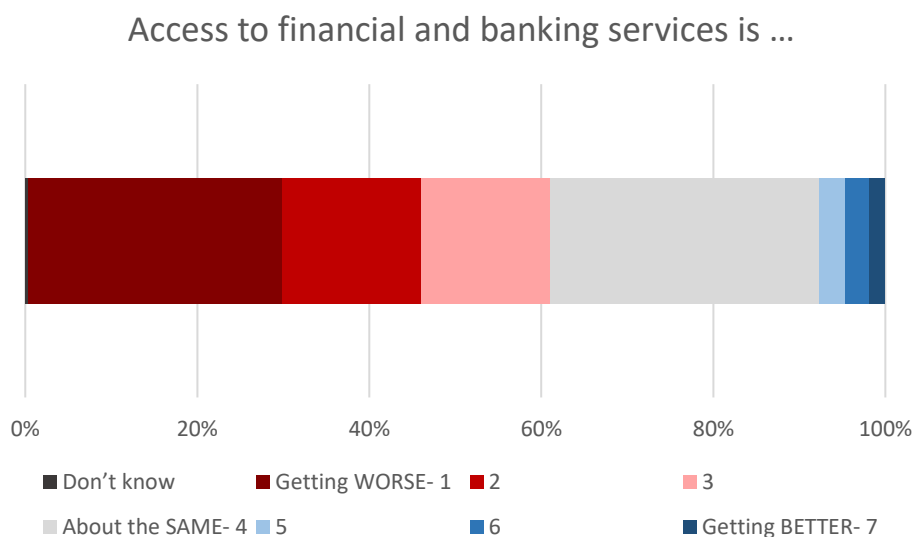




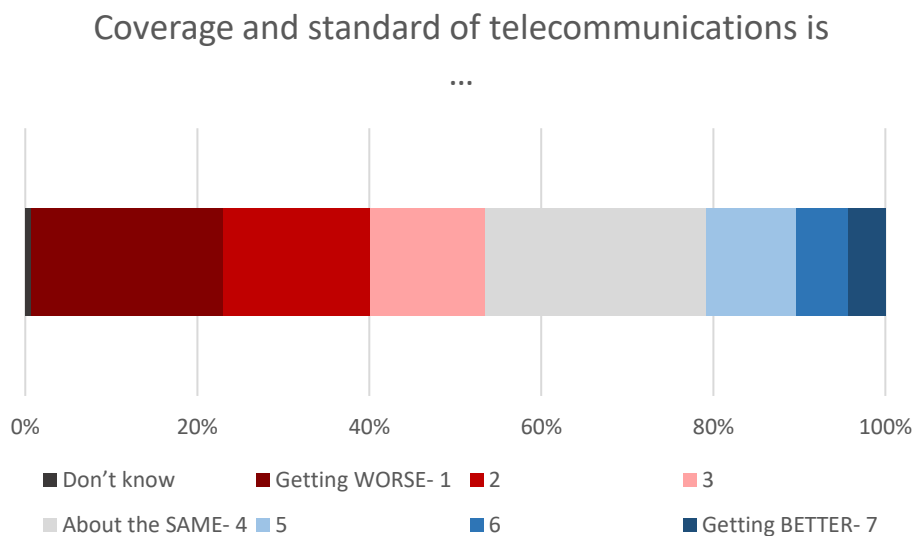
Q4 (2) Looking back over the last 10 years in your community, how have the following been changing?)
Access to fresh food is...



Q4 (2) Looking back over the last 10 years in your community, how have the following been changing?)
Access to financial and banking services is...



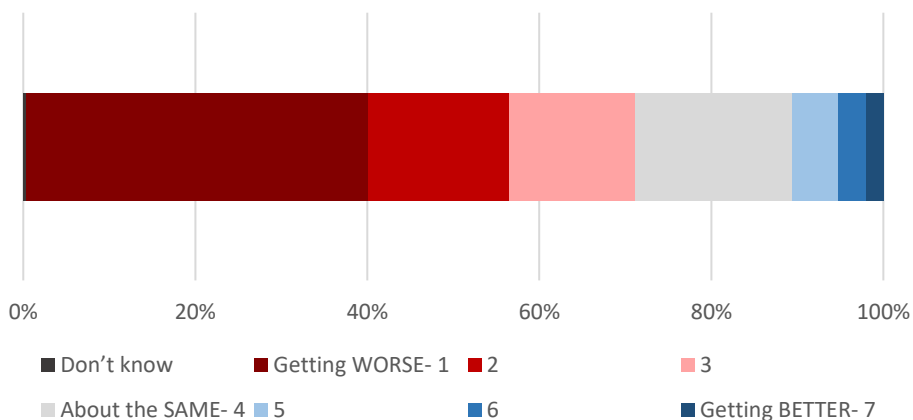
Q4 (2) Looking back over the last 10 years in your community, how have the following been changing?)
Coverage and standard of telecommunications is...





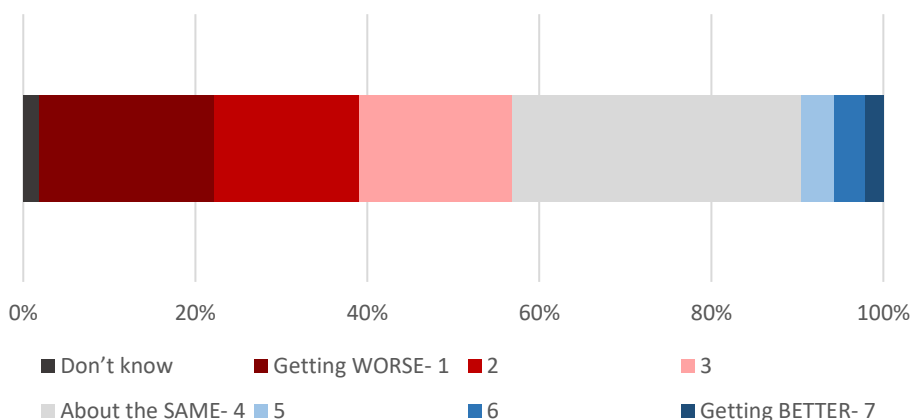
Q4 (2) Looking back over the last 10 years in your community, how have the following been changing?)
The local landscape and surrounds in this community are...

The local landscape and surrounds in this community are ...



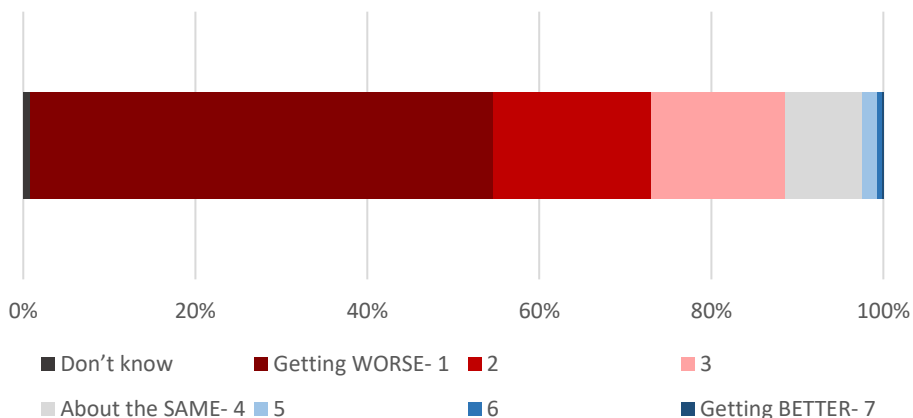
Q4 (2) Looking back over the last 10 years in your community, how have the following been changing?)
Community participation in sport and recreation is....

Community participation in sport and recreation is ...



Q4 (2) Looking back over the last 10 years in your community, how have the following been changing?)
Young people staying / coming back to the community...

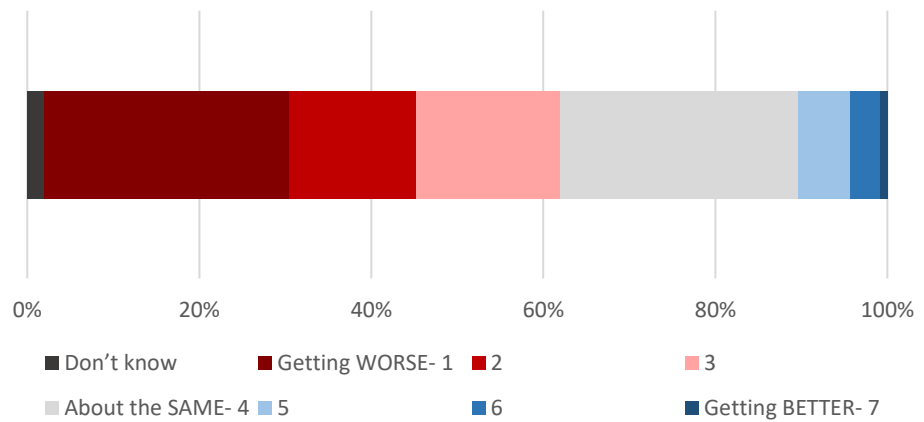
Young people staying / coming back to the community ...





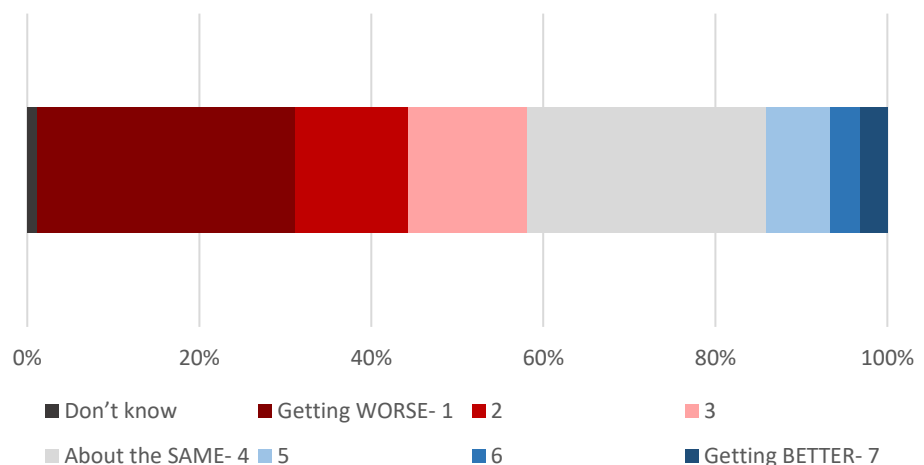
Q4 (2) Looking back over the last 10 years in your community, how have the following been changing?) Relative to other similar communities, conditions in my community are...

Relative to other similar communities, conditions in my community are ...



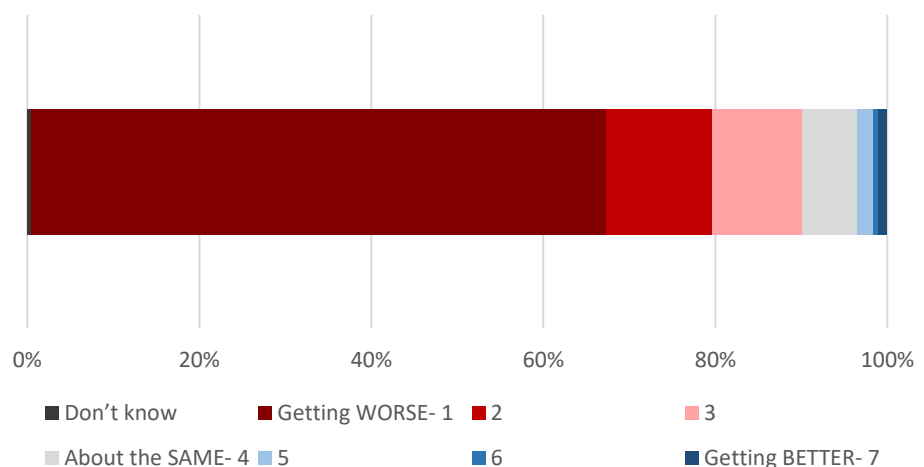
Q4 (2) Looking back over the last 10 years in your community, how have the following been changing?) Effective local leadership is....

Effective local leadership is ...



Q4 (2) Looking back over the last 10 years in your community, how have the following been changing?) Effective state and national leadership is ...

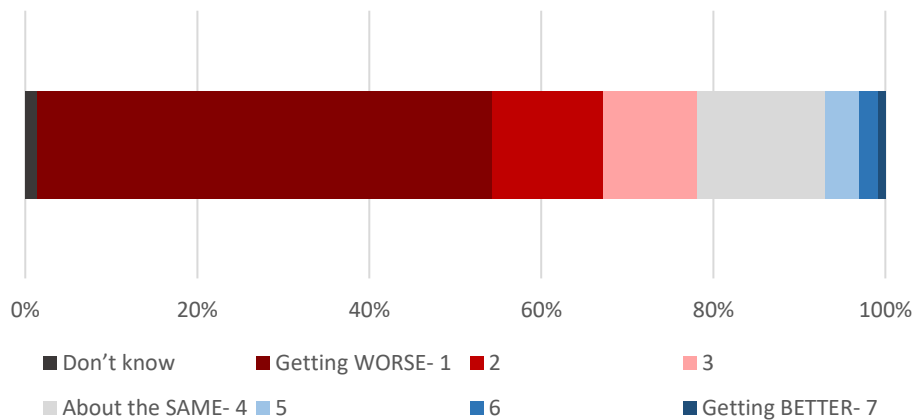
Effective state and national leadership is ...





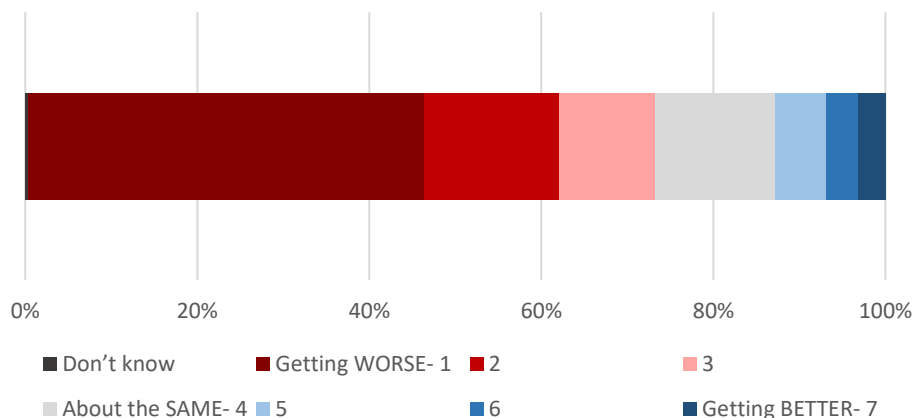
Q4 (2) Looking back over the last 10 years in your community, how have the following been changing?)
Effective (agriculture or irrigation) industry leadership is...

Effective (agriculture or irrigation) industry leadership is ...



Q4 (2) Looking back over the last 10 years in your community, how have the following been changing?)
Accurate media coverage about rural communities is....

Accurate media coverage about rural communities is ...



Q4 (2) Looking back over the last 10 years in your community, how have the following been changing?)
Access to water is ...

Access to water is ...

