Disaster Relief Australia

RESILIENCE

Burnett Big Map Exercise

Understanding Disaster Risk and Empowering Community Resilience

RED EARTH Community Foundation

Disaster Relief Australia

MINDEROO FOUNDATION

FRRR Foundation for Rural Regional Renewal

Disaster Relief Australia – Who we are

Disaster Relief Australia (DRA) unites the skills and experiences of Australian Defence Force Veterans, emergency responders and civilians to rapidly deploy disaster relief teams domestically and around the globe. Integrating into existing emergency management arrangements, where possible, DRA can operate independently or as part of an integrated taskforce. As a national capability, we are skilled in; incident management, damage and impact assessments, aerial damage assessment and mapping, work order management, spontaneous volunteer and corporate volunteer management, debris management and restoring access, expedient home repair and resilience/capacity building.

Our Vision

"Empowering Communities, Building Resilience"

Our vision is to foster disaster-resilient communities through awareness, empowerment, and capacity building. We believe in the power of adaptation and community-focused action.

What are Resilient Communities to us?

DRAs Project Resilience sees disaster resilient communities as:

- One where all people are well-informed about risks and hazards, especially those where they live and work.
- One who is forward leaning in protecting themselves, what they value, and their livelihoods, along with being resilient to losses ensuring a return to normal.
- Resilient communities work together with local leaders, emergency service organisations, and other community-based groups using their collective knowledge and resources to prepare for and withstand disasters. Their actions are guided by resilience-based, and risk informed emergency management plans underpinned by strong social networks that provide support during crises.
- Community businesses and service providers have robust and sustainable continuity plans linked with national disaster risk reduction arrangements. Additionally, they look to ensure land use planning and infrastructure sustainability are in place to mitigate exposure to known hazards and protect life and property.

After a disaster, resilient communities move to quickly restore a liveable range of functioning, with recovery assistance mechanisms and processes understood and appreciated, especially for the most vulnerable and at-risk community members. In essence, they are empowered, resilient, adaptive, people-centric, educated, and aware in the face of disasters.

Our Framework

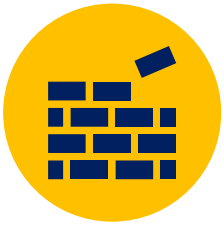
Our disaster resilience framework is built on empowering communities and fostering resilience. It's about understanding and managing risks, preparing for disasters, and ensuring quick recovery. We focus on community empowerment, resilience and recovery, progressive adaptation, a people-centric approach, community and individual wellbeing, and education and awareness.

Our goal is to transform the way Australian families and communities overcome hardship and adversity, making them world-leading examples of resilient communities through the achievement of the following key themes:

Community Empowerment

Action: **Foster active involvement of the community in disaster risk reduction efforts.**

Success: When communities actively engage in disaster risk reduction, understanding hazard risk and through owning their roles, resilience grows.



Resilience and Recovery

Action: **Develop strategies and resources to enable the community to bounce back from disasters.**

Success: When communities swiftly recover from disasters, restoring normalcy and learning from the experience to enhance future preparedness.

Progressive Adaptation

Action: **Encourage the community to adapt and improve their resilience strategies based on past experiences and future predictions.**

Success: When communities thrive after setbacks, evolving resilience strategies based on experience and foresight**.**

People-centric

Action: **Prioritise and meet human needs promptly during disasters.**

Success: When essential human needs are prioritised and met, ensuring everyone's well-being and dignity are preserved.

Community and Individual Wellbeing

Action: **Encourage programs that focus on mental health and psychological support during and after disasters.**

Success: When communities uphold optimism amidst challenges, boosting mental health and resilience for all**.**

Education and Awareness

Action: **Strengthen awareness and education about disaster risks, promoting widespread understanding across Australian society.**

Success: When the community possesses deep awareness of disaster risks, guiding informed decision-making across all levels.

The Operational Big Map

Our flagship capability that sits at the very heart of our 'Relief and Recovery' operations is the DRA 'Operational Big Map' activity. Based on military wargame theory, the purpose of the Big Map is to stimulate innovative thought and consensus to better understand the community complexities and develop a community risk profile based on the exposure within an all-hazards environment.

We believe that locally led and regionally coordinated resilience solutions will address recent and emerging disaster risks and provide pathways for improving community resilience over time. Extreme weather events do not respect boundaries. It is, therefore, crucial to investigate ways we can better prepare for the future and keep our communities safe through self-education, hazard awareness, partnering with neighbours, sharing across boundaries, and setting a proactive agenda for strengthening resilience over time.

Our Big Map exercise aims to combine open-source information and local knowledge with our spatial imagery and mapping technology, to empower your community, and its leaders to proactively reduce disaster risk and identify local and novel solutions to secure a safer long-term outlook.

RESILIENCE PARTNERS

Minderoo Foundation
Fire and Flood Resilience

Established by Andrew and Nicola Forrest in 2001, Minderoo Foundation is a modern philanthropic organisation seeking to break down barriers, innovate and drive positive, lasting change. Minderoo Foundation is proudly Australian, with eight key initiatives spanning from ocean research and ending slavery, to collaboration in cancer and community projects.

Project Resilience is Disaster Relief Australia's contribution to the Minderoo Foundation Resilient Communities Initiative. Resilient Communities aims to lift Australia's 50 most vulnerable communities to be on par with our most resilient ones by 2025.

Red Earth Community Foundation

Red Earth Community Foundation is a non-profit organisation in the Burnett Inland (which encompasses South Burnett, Cherbourg, and North Burnett).

Red Earth's mission is to invest in people as a catalyst for the Burnett Inland region to thrive into the future.

Red Earth plays a vital role in fostering local philanthropy and empowering the region to address their unique challenges and opportunities.

Foundation for Rural Regional Renewal

The 2024 Big Map Burnett Inland events were part of the delivery of the Disaster Resilient: Future Ready (DR:FR) Burnett Inland program.

The DR:FR Burnett Inland program is a partnership between the Foundation for Rural Regional Renewal (FRRR) and Red Earth Community Foundation and has been made possible through the financial support of the National Emergency Management Agency (NEMA) Preparing Australian Communities - Local Stream, and Minderoo Foundation.

Traditional owners

The Traditional Owners of the Burnett region include the Bailai, Gurang, Gooreng Gooreng, Taribelang Bunda, Wakka Wakka, Kabi, Kabi, Burunggam and Wuli-Wuli peoples.

DRA pays respects Aboriginal and Torres Strait Islander people as the continent's first people and nations. We recognise Aboriginal and Torres Strait Islander people as traditional owners and occupants of the Australian land and waters where we undertake the Big Map exercise. We pay our respects to the Indigenous cultures and to Elders past, present and emerging and recognise them as the historical land managers of Country.

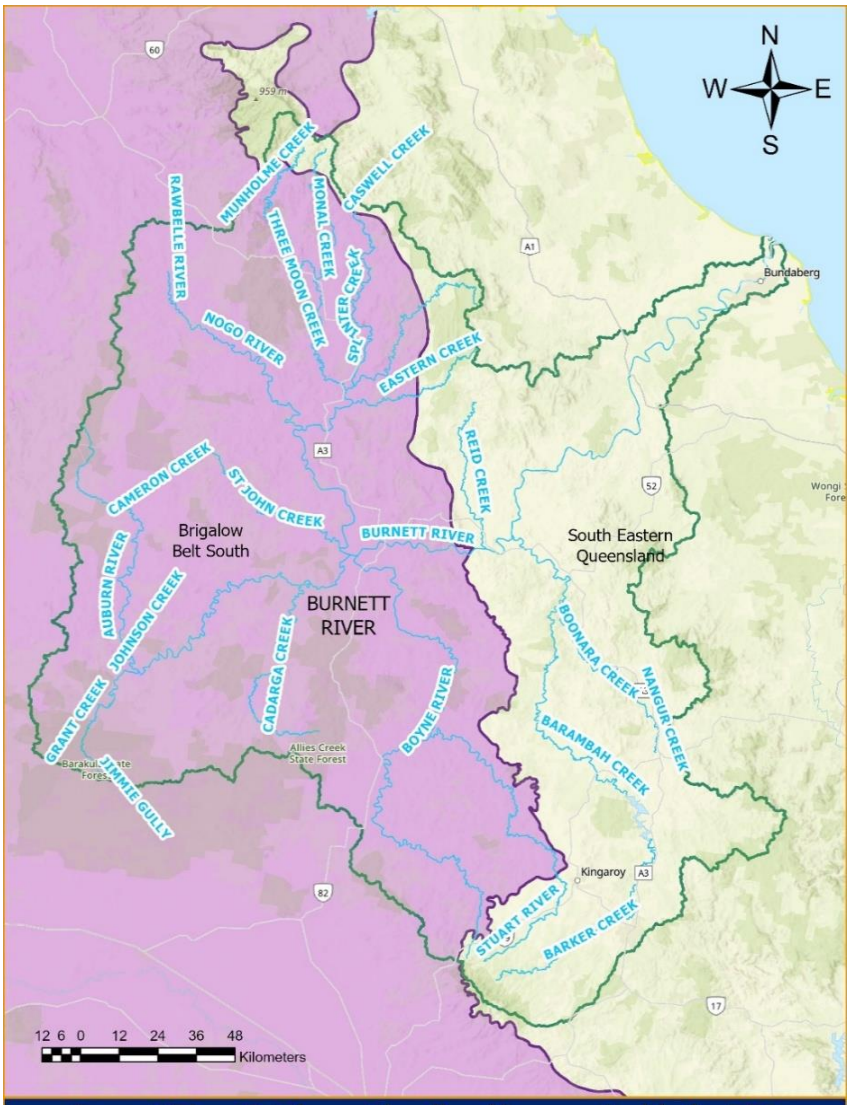
Please Note: This report has been compiled by DRA Volunteers through the exploitation of open-source data and the interpretation of discussion that occurred during the Big Map exercises. The views within this report may not fully reflect those of the partners, stakeholders, and community members who attended the Big Map events.

COMMUNITY RESILIENCE – BURNETT CATCHMENT

This report looks to provide an understanding of the Disaster Resilience, Coping and Adaptive Capacities of localities in the Burnett River Catchment area along with an analysis of the hazards they may face.

Burnett River Catchment

The Burnett River Catchment is located in South East Queensland (SEQ) and covers about 33,000km^2. It sits across two distinct bio-regions, each with their own characteristics that include a range of flora, fauna, vegetation and water regimes, and land use. These two regions are known as the Brigalow Belt South (BBS) and the SEQ bio-regions.



Burnett River Catchment (outlined in green) with the BBS Bio-region to the West (purple) and the SEQ Bio-region on the East Coast (yellow) with all catchment major rivers

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Brigalow Belt South Bio-region

The Brigalow Belt South Bioregion is geographically diverse, spanning northern NSW and southern Queensland, covering approximately 27,219,776ha. It features a varied landscape derived from basalt and quartz soils, with large major river systems flowing through it. The bioregion includes national parks and nature reserves, although only a small portion is under conservation management. The vegetation is predominantly mixed eucalypt woodland, with areas of brigalow scrubs and open Mitchell grasslands, supporting a variety of plant communities and wildlife. The primary land use is cattle grazing, and there are ongoing efforts to conserve the remaining natural habitats through national parks, nature reserves, and private conservation

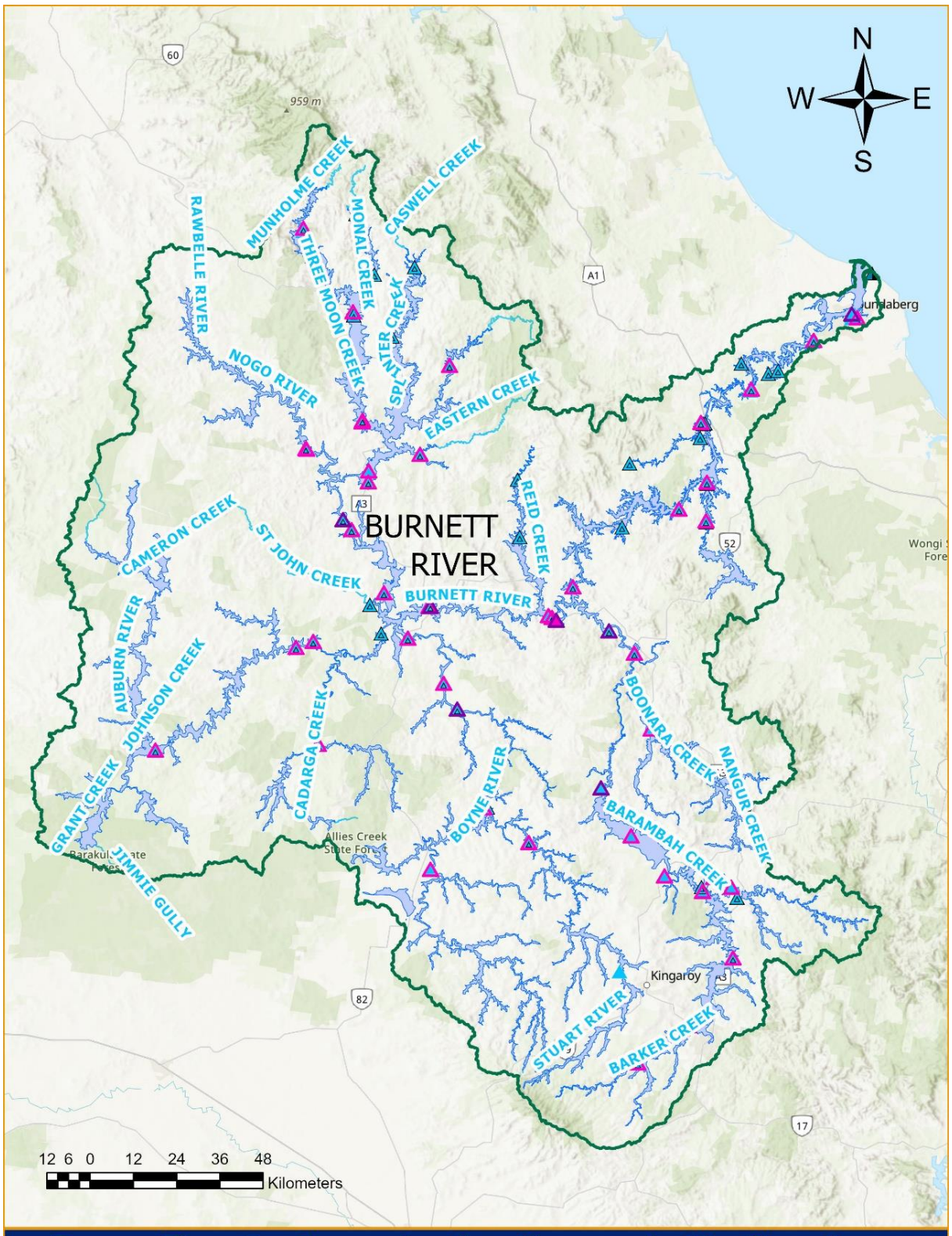
SEQ Bio-region

The SEQ Bioregion, located in south-eastern Queensland and extending into north-eastern NSW, covers approximately 7,804,921ha. This bioregion features diverse landscapes, including eucalypt forests, rainforests, and coastal heathlands. It contains significant protected areas such as the Gondwana Rainforests and Fraser Island World Heritage Sites. Major river systems like the Burnett, Brisbane, Logan, and Mary Rivers play a crucial role in the region's ecology. The bioregion is highly urbanised, with substantial areas dedicated to residential, commercial, and industrial development, while agriculture remains an important land use. Efforts to conserve the remaining natural habitats are ongoing, with numerous national parks and nature reserves aimed at protecting the region's biodiversity.

Burnett River

The Burnett River originates in the Dawes Range, north of Monto, and flows south through towns such as Gayndah and Mundubbera before reaching the coast at Bundaberg. The river is approximately 435km long and is fed by major tributaries including the Nogo River, Auburn River, Boyne River, and Barambah Creek. The catchment area is predominantly used for agriculture, including grazing and cropping, with areas of natural vegetation, conservation reserves, and urban development particularly around Bundaberg.

The Burnett River Catchment has a history of significant flooding events, influenced by its topography and rainfall patterns. Notable floods include those in 2013 and 2022, which caused extensive damage to Bundaberg and the greater catchment and surrounding areas. Key water storages in the catchment, such as Paradise Dam, Wuruma Dam, and Cania Dam, play a crucial role in water supply, irrigation, and flood mitigation. The catchment supports diverse ecosystems, including eucalypt forests, riparian vegetation, and wetlands, with significant flora and fauna. The catchment's health and resilience are crucial for sustaining the local communities and ecosystems.



Burnett River Catchment (outlined in green) with all catchment major rivers, flood extents, and Forecast, Information and River gauge locations (triangles)

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Burnett River Key Information

Headwaters	Dawes Range north of Monto
Length	435km discharging into the Coral Sea
Flood Classification Heights (m)	Burnett River @ Bundaberg Minor: 3.5 Moderate: 5.5 Major: 7.0 For further flood classification heights at forecast locations visit Latest River Heights for the Cherwell-Burrum, Burnett, Kolan Rivers and tributaries
Confluence	The Burnett River has several major confluences along its course. One key confluence is with the **Auburn River** and the **Boyne River**, which occurs approximately 10km south of Mundubbera
Major Tributaries and Sources	Barker and Barambah Creeks Boyne and Auburn Rivers Nogo River, Three Moon Creek, Spliter Creek, Reids Creek. Tawah and Degilbo Creek
Main Storages	Paradise Dam Wuruma Dam Cania Dam Boondooma Dam and Bjelke-Petersen Dam
Gauges and BoM gauge reference	The Burnett River Catchment currently has a total of 162 gauges comprising 57 rain stations, 71 rain and river stations, and 34 river stations. For flood gauge infrastructure including Forecast, Information, and Data gauges located within the Burnett Catchment refer to the Service Level Specification for Flood Forecasting and Warning Services for Queensland – Version 3.5
Main Towns/Areas and crossings	Bundaberg, Gayndah, Munduberra, Eidsvold, Monto, Biggenden, Mount Perry. Burnett Bridge, Tallon Bridge, Les Baker Bridge, Dimitrios Bridge, Eidsvold Station Bridge.
Record Flooding (Major) Events	1875, 1890, 1893 (twice in 2 weeks), 1928, 1942, 1954, 1971, 2010, 2013, 2017, 2022.

DISASTER RESILIENCE

Wider Burnett Localities

The Burnett River catchment sustains several large regional centres and smaller localities along its course. The main Local Government Areas (LGAs) located within the Burnett River Catchment are outlined below.

North Burnett LGA

The North Burnett Regional LGA is located in the Wide Bay-Burnett region of Queensland, Australia, covering approximately 19,700km^2. It includes six main townships: Biggenden, Eidsvold, Gayndah, Monto, Mount Perry, and Mundubbera, along with 25 additional towns and farming areas. The region has a population of around 10,220 people, with a median age of 49 years and a labour force of approximately 4,793 people.

Key industries include agriculture, forestry, fishing, health care, social assistance, and mining. The area is known for its natural beauty, featuring national parks and reserves that offer recreational opportunities and conservation of local flora and fauna. The North Burnett Regional Council focuses on development and resilience, supporting local communities through infrastructure projects, economic development programs, and disaster preparedness initiatives. The region has experienced significant flooding events, leading to displacement, property damage, and economic losses. The council works on flood mitigation and recovery efforts to support affected communities and enhance resilience against future events.

South Burnett LGA

The South Burnett Regional LGA is located in the South Burnett district of Queensland, Australia, covering approximately 8,382km^2. It has a population of around 32,996 people, with a median age of 48 years. The region includes several towns, with Kingaroy being the largest and serving as the administrative center. Known for its natural beauty, the area features attractions like the Bunya Mountains and various national parks.

The South Burnett Regional Council focuses on community development, economic growth, and environmental management, with initiatives aimed at infrastructure development, health services, and recreational facilities. The region has experienced significant flooding events, and the council works on flood mitigation and recovery efforts to support affected communities.

Bundaberg LGA

The Bundaberg Regional LGA is located in the Wide Bay-Burnett region of Queensland, Australia, covering approximately 6,451km^2. As of June 2023, it has an estimated population of 104,166 people, with a median age of 47 years. The region includes major towns such as Bundaberg, Bargara, Childers, and Gin Gin, with Bundaberg being the largest and serving as the administrative center. Known for its natural beauty, the area features attractions like the Mon Repos Turtle Centre, the Bundaberg Botanic Gardens, and the Southern Great Barrier Reef.

The Bundaberg Regional Council focuses on promoting economic growth through initiatives that support local businesses, tourism, and agriculture. Additionally, the council provides a range of community services, including health, education, and recreational facilities, to enhance the quality of life for residents. Environmental sustainability is a priority, with efforts aimed at conservation, waste management, and sustainable land use. The region has experienced significant flooding events, particularly those associated with heavy rainfall and tropical cyclones, leading to property damage, displacement of residents, and economic losses. The council works on flood mitigation and recovery efforts to support affected communities and enhance resilience against future events.

Cherbourg Local Government Area (LGA)

The Cherbourg LGA is located in the South Burnett region of Queensland, Australia, approximately 250km northwest of Brisbane, near the town of Murgon. It covers a small area of about 31km^2 and has a population of approximately 1,194 people, with a median age of 23 years. A significant majority of the population, about 96.4%, identifies as Aboriginal and/or Torres Strait Islander.

Cherbourg is known for its rich Aboriginal cultural heritage, with notable sites like the Ration Shed Museum. The Cherbourg Aboriginal Shire Council focuses on community well-being through initiatives in housing, health services, and education, and supports local economic development by promoting employment opportunities and skills training. Efforts to preserve and promote Aboriginal culture and heritage are also a key focus. The region is susceptible to flooding, and the council works on flood mitigation and recovery efforts to support affected communities.

Quick Demographic Facts of the whole of catchment area

Population estimate of over 121,000 and 55,000 residential dwellings

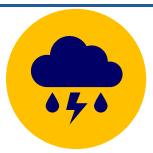
23% aged over 65

22% aged under 14

89% are low to medium income

29% have moved to the area in the last five years

10% have moved to the area in the last 12 months



Up to 10% may not have experienced a significant natural hazard event in the local area

7% identify as First Nations

HAZARDS & EXPOSURE

The Burnett River Catchment and population centres contained within are exposed to, and experience, a range of natural hazards that can significantly impact the whole of community.

Between 2010 and 2022, the region endured 17 significant disaster events, including flooding, severe weather, storms, cyclones, and bushfires.

Natural Hazards

Bushfires	The Burnett region, with its extensive rural and forested areas, is highly susceptible to bushfires, especially during dry seasons.
Flooding	The Burnett River and its tributaries can experience significant flooding, particularly during heavy rainfall and tropical cyclones.
Heatwaves	The region experiences extreme heat events, particularly during the summer months.
Earthquakes	While less frequent, the Burnett region can experience minor to moderate earthquakes.
Drought	The Burnett region is prone to prolonged periods of drought, affecting water availability.

Recent Hazard Exposure

Flooding Events

2010/11 Floods

- Extent: Widespread flooding across Queensland, including the Burnett catchment.
- Damages: Damage to infrastructure, homes, and farmlands. Roads and bridges were washed away, isolating communities.

- Loss: Extensive property damage.
- General Impacts: Long-term economic impacts, particularly on agriculture and local businesses. Recovery efforts included significant investment in flood mitigation infrastructure.

2013 Floods

- Extent: Significant flooding throughout the Burnett River catchment, particularly affecting Bundaberg and surrounding areas resulting in multiple days of isolation for communities.
- Damages: Extensive damage to homes, infrastructure, and agricultural land. Over 2,000 properties were inundated in Bundaberg alone.
- Loss: Widespread displacement of residents.
- General Impacts: Major disruptions to the local economy, with significant recovery and rebuilding efforts required. The floods also caused severe erosion and sedimentation issues.

2022 Floods

- Extent: Significant flooding throughout the Burnett River catchment. Heavy rainfall led to widespread inundation, particularly in low-lying areas.
- Damages: The floods caused extensive damage to infrastructure, including roads, bridges, and buildings. Many homes and businesses were flooded, leading to significant repair and reconstruction efforts.
- Loss: There were losses in the agricultural sector impacting primary producers and the local economy. Livestock losses were also suffered.

- General Impacts: Communities became isolated as road connections were cut off. This isolation had impacts to the emergency response efforts and the delivery of essential services. The community faced significant emotional and financial stress, with recovery efforts continuing for months after the event.

Bushfire Events

2019-2020 Bushfire Season

- Extent: Severe bushfires affected various parts of Queensland, including areas within the Burnett catchment.
- Damages: Destruction of homes, properties, and large areas of bushland.
- Loss: Loss of wildlife and habitats, with significant environmental damage.
- General Impacts: Health impacts from smoke inhalation, economic losses in agriculture and tourism, and long-term ecological recovery efforts.

LOCAL RESILIENCE

The National Disaster Resilience Index (NDRI) launched by the University of New England (UNE) and the Bushfire and Natural Hazards Cooperative Research Centre (BNHCRC) measures resilience through a combination of social, economic, natural environment, built environment, governance, and geographical factors (for example, access to information and availability of emergency services).

This work found that there is a general pattern of higher capacity for disaster resilience across the populated southeast areas of Australia, and around metropolitan and major regional centres.

The Greater Burnett Catchment area is assessed as having the following capacities across Disaster Resilience, Coping Capacity, and Adaptive Capacity using data from the NDRI.

Disaster Resilience	The Disaster Resilience levels across the catchment regions are predominately **Low.** Those areas of low disaster resilience levels display some capacity to adjust as a result of change.
Coping Capacity	There is predominately **Low - Moderate** levels of coping capacity across the catchment areas. This sees areas that may be constrained in the utilisation of the available resources to cope with adverse impacts and sudden changes. But there is also some capacity to use available resources to cope with adverse events.
Adaptive Capacity	The Adaptive Capacity levels of those areas within the catchment footprint are generally **Low**

LOCAL RESILIENCE MEASURES

Also in place within the greater catchment area which was developed in partnership between the four main LGAs and the Queensland Reconstruction Authority are the **Burnett Regional Resilience Strategy** and the **Burnett River Catchment Flood Strategy.** These two strategies are outlined below along with their impact on local resilience.

Burnett Regional Resilience Strategy

Holistic Approach: The strategy takes an all-hazards approach, addressing risks from bushfires, earthquakes, droughts, heatwaves, and floods.

Collaborative Development: Developed in partnership with Bundaberg Regional Council, Cherbourg Aboriginal Shire Council, North Burnett Regional Council, South Burnett Regional Council, and the Queensland Reconstruction Authority.

Community Focus: Emphasises local knowledge, community networks, and grassroots leadership to enhance disaster resilience.

Strategic Pathways: Identifies strategic pathways for resilience, including infrastructure resilience, social wellbeing, natural resource management, and disaster management resources.

Action Plans: Includes Local Resilience Action Plans to prioritise and implement resilience actions, ensuring sustained investment in resilience and mitigation activities.

Burnett River Catchment Flood Strategy

Coordinated Approach: Provides a consistent and coordinated approach to managing flood risk across the Burnett River Catchment.

Resilience Aspirations: Focuses on four key resilience aspirations: a resilient society, a resilient economy, a resilient environment, and resilient settlements.

Integrated Engagement: Developed through a multi-disciplinary approach involving professionals in mental health, engineering, planning, community and economic development, disaster management, transport, environmental management, and communications.

Floodplain Management: Emphasises effective floodplain management through data management, community awareness, building controls, land use planning, and disaster management.

Implementation Oversight: Overseen by the Wide Bay Burnett Regional Organisation of Councils, ensuring coordinated implementation and continuous improvement.

IMPACT ON LOCAL RESILIENCE

The **Burnett Regional Resilience Strategy** contributes to the increased resilience of the Burnett Catchment community by:

- **Enhancing Coping Capacity**: Enhances immediate response capabilities through improved emergency plans, community education, and infrastructure resilience.
- **Building Adaptive Capacity**: Builds long-term adaptability by integrating resilience into planning and development, promoting sustainable land use, and supporting economic diversification.
- **Promoting Sustainable Practices**: Strengthens overall resilience by fostering collaboration across local governments, leveraging local expertise, and ensuring continuous improvement through regular reviews and updates.

The **Burnett River Catchment Flood Strategy** contributes to the increased resilience of the greater Burnett Catchment community by:

- **Enhancing Coping Capacity**: Improves immediate flood response through better flood warning systems, evacuation plans, and community preparedness initiatives.
- **Building Adaptive Capacity**: Enhances long-term adaptability by promoting sustainable land use practices, improving infrastructure resilience, and integrating flood risk management into regional planning.
- **Promoting Sustainable Practices**: Strengthens overall resilience by fostering a culture of preparedness, enhancing community awareness, and ensuring that flood risk reduction measures are continuously updated and improved.

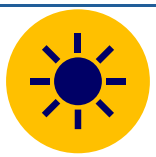
These strategies collectively enhance the ability of communities in the Burnett region to withstand, respond to, and recover from flooding and other disasters, ensuring a more resilient future.

CLIMATE & THE DRIVERS OF CLIMATE TRENDS

Queensland is already experiencing the impacts of variations in climate trends with projections suggesting it will continue to change over the coming decades. These projections include:

QLD will continue to get hotter into the future, with more warming inland increasing the chance of extreme intensity heatwave events.

Under a high emissions scenario, QLD can expect an average annual temperature increase of around 1.3 – 2.5 °C (central estimate of 1.9°C).



The number of hot days (>35°C) in Brisbane are expected to increase to 8 days per year and up to 14 in Toowoomba.

The climate of Brisbane is projected to be more like the current climate of Mareeba.

QLD can expect longer fire seasons, with around 40% more very high fire danger days.

Rainfall may decrease with QLD to become drier but extreme rain events will be more intense.

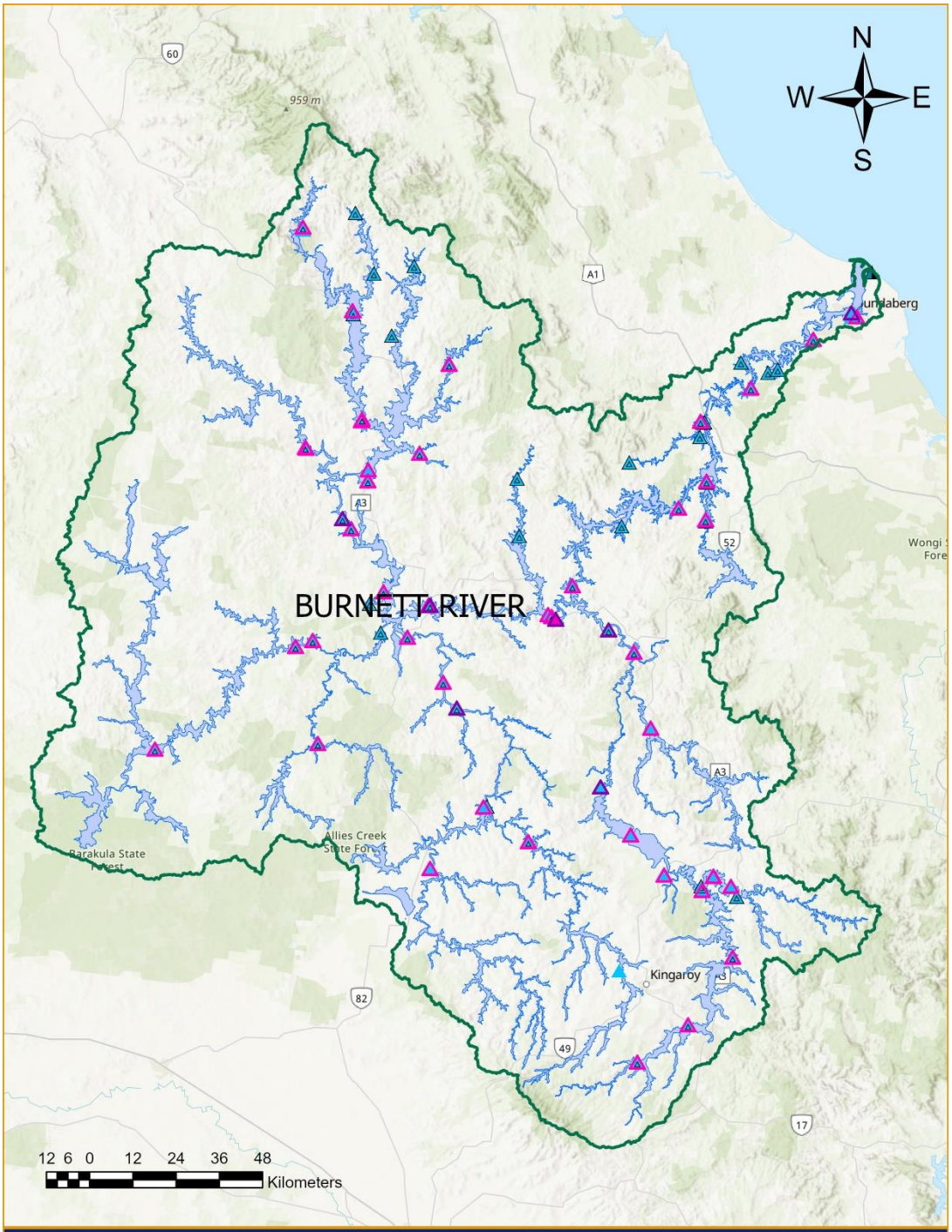
Sea levels are projected to rise by around 26 cm along the coast of Queensland

The number of tropical cyclones is projected to decrease by about 8% for this region of Australia

Climate trends indicate that the Burnett River Catchment will face increased frequency and intensity of hazard events such as bushfires, heatwaves, and flooding. These changes will place significant strain on infrastructure and systems, including roads, water supply, and emergency services. The heightened risk of extreme rain events will challenge the resilience of both natural and built environments, necessitating enhanced flood management and strategies.

Additionally, more frequent and severe flooding could overwhelm drainage systems and damage properties, requiring substantial investment in flood mitigation and resilient infrastructure. Overall, these climate impacts will demand proactive planning and adaptation measures to safeguard the community and maintain essential services.

BURNETT CATCHMENT NATURAL HAZARD IMPACT – FLOOD SCENARIO



Burnett River Catchment Flood Event Scenario - Flooding Extents with Flood Gauge Infrastructure Locations

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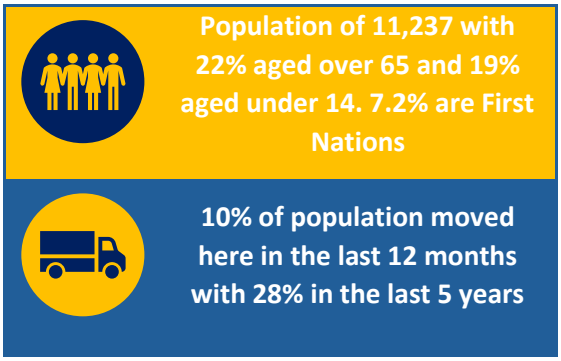
Flooding events can have widespread impacts, causing extensive damage to homes, businesses, and infrastructure that leads to loss of life, displacement, and destruction of crops and livestock. The health risks are significant, including waterborne and vector-borne diseases, injuries from drowning and physical trauma, and mental health issues. Floodwaters often carry contaminants, leading to various illnesses. Infrastructure is heavily strained, with disrupted transportation networks and damaged utilities affecting essential services. Economically, the costs of damage, business interruptions, and long-term consequences like loss of tourism can be substantial.

Community preparedness plays a crucial role in mitigating these impacts through early warning systems, evacuation plans, and public education. Flooding also leads to cascading effects, such as the disruption of healthcare services and hindered emergency response due to infrastructure damage. Communities with robust preparedness plans fare better in responding to and recovering from these events, minimising overall losses.

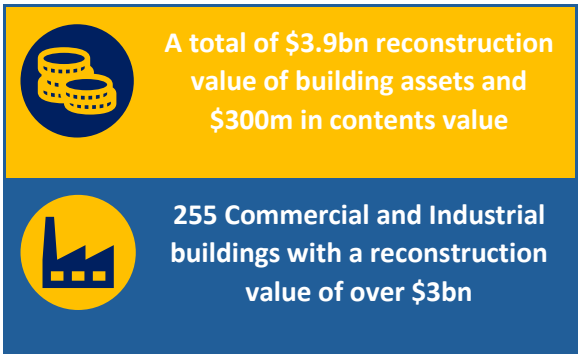
In the event of a catchment wide natural hazard event, like that of an extreme rain fall leading to significant flooding, immediate exposure to the **directly impacted flood prone areas** includes the below points with the infographic outlining the entirety of what is **exposed within the flooded areas**.

- A total area of **266,520ha** has suffered from some level of inundation.
- Main supply routes totalling **102km** are largely inaccessible with over **133km** of arterial and sub arterial roads having limited access for essential transport only. **Two** airport landing areas and **one** major maritime port are impacted.
- In addition **19** emergency services facilities and stations are impacted, and 1 local government office is offline. Up to **71km** of electricity lines have also suffered impacts with intermittent operational capability.
- **Two** liquid fuel depots and **17** petrol stations have been impacted along with **4km** of gas pipeline. **Seven** telephone exchanges are also located within the flood impacted area.
- **Two** Waste management and **10** wastewater treatment plant sites are impacted and at reduced capacity.

People and Employment Exposure



Business and Economic



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- 5% of the population are in public housing
- Top 5 employment industries: Health Care Social Assistance, Agriculture, Education and Training, Retail Trade, Construction
- 5,310 residential dwellings
- 34% medium income and 56% are low income

- 2,604 GST and Non-GST Businesses
- 495 primary producers
- 215,215ha of agricultural area with agriculture commodity valued at $113m

Public Administration and Social Setting Exposure

- 9 Pre/Primary, 1 Secondary, and 2 other schools
- 1 Public Hospital, 2 Nursing and 1 Retirement Homes
- 2 Police Stations, 2 Ambulance Stations, 6 SES Facilities and 9 Fire Stations
- 3 Centrelink and 1 Medicare Offices
- 38 registered charity organisations

Important Infrastructure

- 71km of electricity lines
- 2 Liquid Fuel Depots, 17 Petrol Stations, 4km of Gas Pipelines
- 2 Waste management sites, 10 wastewater treatment plants, and 9 major dam walls
- 102km of major roads, 133km of Arterial and sub-arterial roads
- 2km of operational tracks

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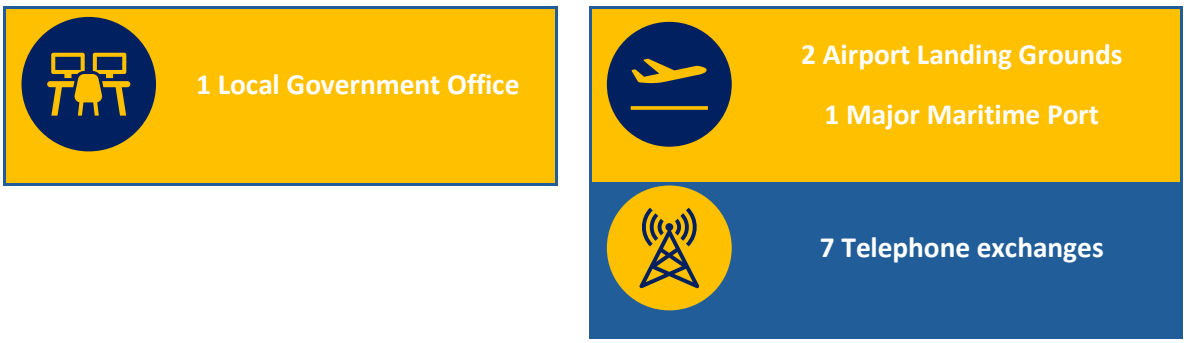
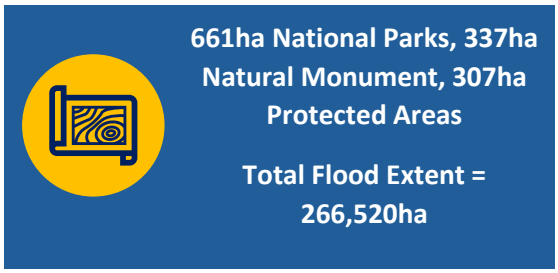


Ecological Community Exposure



As a Result of a Significant Flood Event Impact……

People: Flooding poses serious health risks, including injuries, waterborne diseases, and mental health impacts such as trauma and stress. The immediate danger of drowning and the long-term health effects from contaminated water can be severe. Vulnerable populations, such as children, the elderly, and those with disabilities, are particularly at risk.

Social Setting: Floods can lead to the loss of common social infrastructure, such as schools, community centres, and recreational facilities, disrupting daily life and social cohesion. Displacement from homes can result in isolation and strain on social networks, making recovery more challenging for affected individuals and communities.

Public Administration: The capacity of public administration to provide services may be significantly reduced during and after a flood. Emergency services, healthcare, and social support systems can become overwhelmed, leading to delays in assistance and reduced effectiveness in service delivery.

Economy: The economic impact of flooding can be extensive, including downturn in local economies, wage losses, and business closures. Agricultural sectors may suffer from crop destruction and livestock losses, while businesses face property damage and operational disruptions, leading to financial instability for workers and owners alike.

Ecological Communities: Flooding can cause the loss of species and habitats, leading to long-term ecological damage. The inundation of landscapes can result in soil erosion, water pollution, and the degeneration of natural habitats, disrupting ecosystems and biodiversity.

Infrastructure: Critical infrastructure, such as roads, bridges, power lines, and water treatment facilities, can suffer from loss of function, damage, or destruction. Floodwaters can cause extensive damage to buildings and transportation networks, leading to prolonged outages and disruptions in essential services.

This risk statement highlights the multifaceted impacts of significant flooding events, emphasizing the need for comprehensive preparedness and response strategies.

HOW CAN WE BETTER PREPARE FOR AND LESSEN THESE IMPACTS

Building resilience against flooding involves a combination of preparedness, education, infrastructure improvements, and community support. Here are some key strategies:

Public Awareness and Education:

- **Flood Risk Education**: Inform the community about flood risks, including understanding flood maps and recognising flood-prone areas.
- **Preparedness Workshops**: Conduct workshops on flood preparedness, including how to create emergency kits and evacuation plans.

Infrastructure Improvements:

- **Flood Defences**: Invest in flood defences such as levees, flood walls, and barriers to protect vulnerable areas.
- **Drainage Systems**: Improve urban drainage systems to handle heavy rainfall and reduce surface water flooding.
- **Building Codes**: Enforce building codes that require flood-resistant construction materials and elevated structures in flood-prone areas.

Health Services:

- **Emergency Medical Plans**: Develop plans to ensure healthcare facilities can operate during floods and provide care for flood-related injuries and illnesses.
- **Mental Health Support**: Provide mental health support for individuals affected by flooding, addressing trauma and stress.

Community Support Networks:

- **Evacuation Plans**: Develop and communicate clear evacuation plans, including designated shelters and safe routes.

- **Community Groups**: Form community groups to assist with flood response and recovery efforts, ensuring vulnerable populations receive help.

Economic Measures:

- **Insurance**: Promote flood insurance to help individuals and businesses recover financially after a flood.
- **Financial Aid**: Provide financial assistance to those affected by flooding to support rebuilding and recovery efforts.

Policy and Planning:

- **Floodplain Management**: Implement policies to manage development in floodplains, reducing the risk of damage.
- **Integrated Water Management**: Develop integrated water management plans that consider flood risks and water resource management.

Technological Solutions:

- **Early Warning Systems**: Implement early warning systems to alert communities about impending floods, allowing for timely evacuations.
- **Flood Monitoring**: Use technology to monitor water levels and predict flooding, providing real-time data to emergency responders.

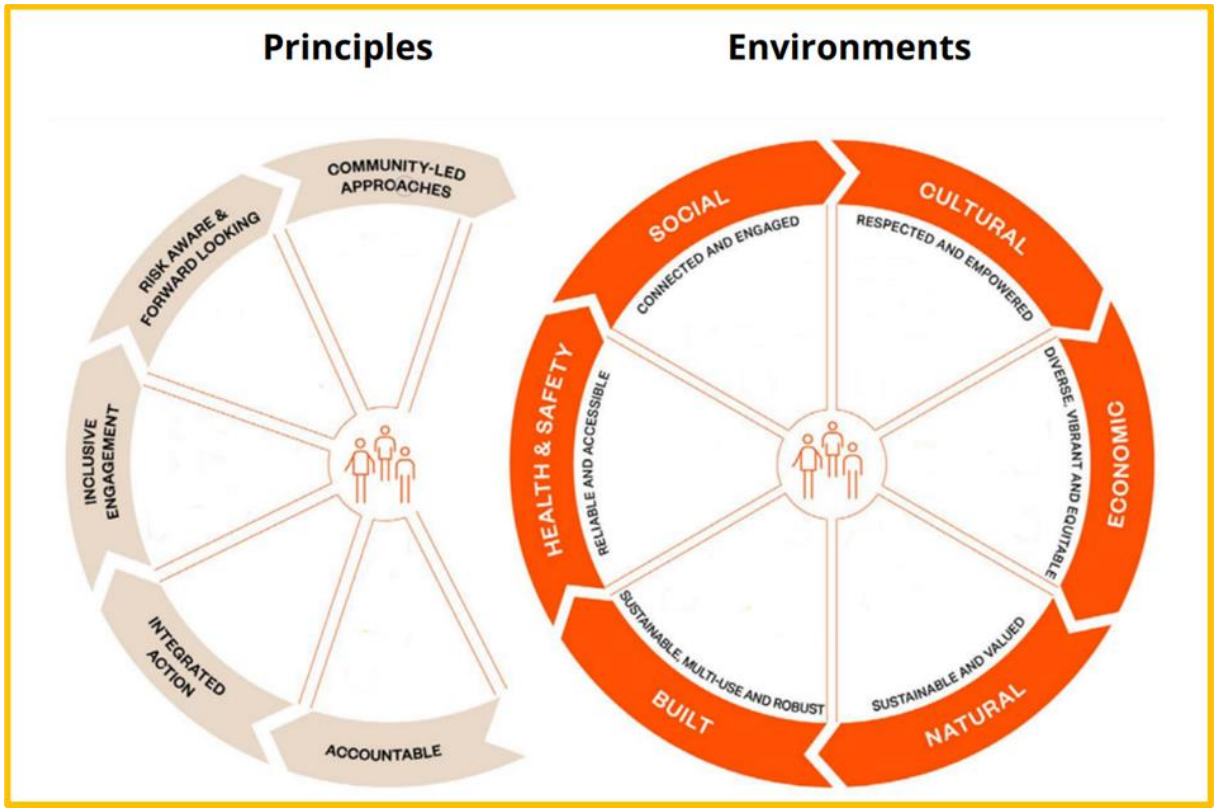
By implementing these measures, communities can enhance their resilience to flooding, minimizing the impact on people, infrastructure, and the economy.

BIG MAP INSIGHTS, ANALYSIS & KEY POINTS

DRA, in collaboration with the Minderoo Foundation's Resilient Communities Initiative and Community Foundation conducted the Big Map exercise across the Burnett Catchment communities in Biggenden, Monto, Munduberra, and Murgon. A Burnett Catchment Stakeholder event was also undertaken.

Attendees included Local Government representatives, operational emergency management staff, key partners, and other stakeholders including representatives from community groups and community members.

Participatory Disaster Risk Management



During the conduct of our Big Map activities stakeholders and community members were invited to participate in a self-assessment of their local disaster resilience.

The **Resilient Communities Framework (RCF)** was used as an **Assessment and Prioritisation Tool** at all the Big Map events in the Burnett Catchment (except Kingaroy), reflecting participants' feedback across various aspects of community resilience.

The framework divides feedback into **Principles** and **Environments**, categorised using **red** (weakness), **yellow** (can improve), and **green** (strength) dots. Below is a detailed analysis based on the results from this event.


Area of weakness

Can improve


Area of strength

Firstly, we have analysed each framework on its own and the done some comparison between the differences and alignment between the Stakeholders and the Communities and again between all the communities.

Resilient Communities Framework

Principles

Community-led approaches	Strengthen the ownership and decision-making power of community members, and ensure all efforts reflect and leverage a community's unique context, history, assets and local knowledge.
Risk aware & forward looking	Draw from a wealth of knowledge and experience to understand and respond to risk and recognise that the past is not always predictive of a changing future. Create a vision of a more resilient future that community members can align around.
Inclusive engagement	Ensure broad and equitable participation of those who represent a community's diverse perspectives, priorities and histories.
Integrated action	Align efforts across sectors and disciplines utilising a collaborative approach to support and advance holistic, coordinated and shared outcomes.
Accountable	Hold self and others accountable for decisions, actions and outcomes, including the responsibility for learning and continuous improvement, in a way that builds trust and promotes transparency and a sense of shared ownership.

Environments

Connected & engaged social environment	Social cohesion is prioritised and diversity is celebrated. Community leadership and governing mechanisms are clear, purposeful and trusted. Residents are empowered to create and participate in civic opportunities. Educational opportunities are varied, accessible and effective. Social infrastructure creates common ground between diverse residents and forms the basis of a larger sense of belonging and collective life.
Respected & empowered cultural environment	Community members' knowledge, histories and identities are valued and celebrated. Culturally informed knowledge and practices are utilised before, during and after disaster. Residents develop and engage in diverse cultural activities
Diverse, equitable & vibrant economic environment	Economic activities do not entirely depend on one sector, the local and greater regional economy is thriving, there is sufficient investment in resilience building, and there are minimal economic disparities between groups.
Sustainable & valued natural environment	Natural assets and ecosystems are understood, valued, invested in, and managed to maintain a wide array of services, safeguard culture and tradition, support local amenity, enhance biodiversity, and mitigate natural hazard risk.
Sustainable, multi-use & robust built environment	Infrastructure promotes socioeconomic and ecological processes that enhance equity and wellbeing. It is designed to withstand hazards, has appropriate redundancy, and is not over-reliant on a single asset.
Reliable & accessible health & safety environment	All residents feel safe, secure and informed. Essential and emergency services actively plan for all phases of the disaster cycle and prioritise residents' and their own staff's physical and mental health and wellbeing. Comprehensive, transparent and contextually appropriate law enforcement promotes safety and security for all community members.

Detailed Analysis of the Resilient Communities Framework for the Burnett Catchment Stakeholder Event

Analysis of Principles

Community-Led Approaches:

- **Dot Distribution:** Predominantly **green dots**, with a **few** **yellows** and **minimal reds**.
- **Interpretation:** Stakeholders perceive the Burnett Catchment as having strong community-led initiatives, with clear accountability and diverse project efforts. However, a few **yellow** and **red dots** highlight areas where long-term planning and future accountability could be improved.
- **Opportunity:** Leverage existing strengths while addressing gaps in strategic foresight and planning for sustainable community-led outcomes.

Risk Aware & Forward-Looking:

- **Dot Distribution:** Mix of **yellow** and **red dots**, with fewer **greens**.
- **Interpretation:** Participants identify risk awareness and forward planning as areas needing attention. Limited confidence in current practices indicates room for improvement in preparing for future hazards.
- **Opportunity:** Conduct community-level workshops and use evidence-based approaches to increase knowledge and preparedness for risks specific to the Burnett Catchment.

Inclusive Engagement:

- **Dot Distribution**: Balanced mix of **reds**, **yellows**, and **greens**.
- **Interpretation:** Engagement strategies **show promise** but are inconsistent across stakeholder groups. Gaps exist in ensuring diverse community representation and effective communication.
- **Opportunity:** Strengthen inclusive engagement by adopting broader outreach strategies and fostering stronger ties with diverse groups in the catchment area.

Integrated Action:

- **Dot Distribution:** Similar to Inclusive Engagement, with a **mix of dots**.
- **Interpretation:** Collaboration across sectors is evident but remains fragmented. Stakeholders noted **potential vulnerabilities** in isolated silos that could cascade during disaster events.
- **Opportunity:** Promote integrated planning across sectors to close silos and build a unified approach to resilience.

Accountable:

- **Dot Distribution:** Primarily **green dots**, with a few **yellows.**
- **Interpretation:** Accountability is viewed as a **strength** in the Burnett Catchment, with transparent processes and regular feedback mechanisms noted by participants.
- **Opportunity:** Continue to uphold accountability practices and ensure ongoing transparency in decision-making and project implementation.

Analysis of Environments

Social – Connected and Engaged:

- **Dot Distribution:** Predominantly **green** and **yellow** **dots**.
- **Interpretation:** Social cohesion and trust are perceived as **strengths** within the Burnett Catchment. However, stakeholders recognise the need to **enhance inclusion** across underrepresented groups and generations.
- **Opportunity:** Build on strong community connections while extending engagement efforts to include a wider range of voices and experiences.

Cultural – Respected and Empowered:

- **Dot Distribution:** More **red** and **yellow** **dots** than **green**.
- **Interpretation:** Cultural inclusion and respect emerged as areas needing **significant improvement**, particularly in empowering diverse groups and incorporating Indigenous knowledge.
- **Opportunity:** Foster initiatives that celebrate cultural diversity and ensure Indigenous leaders play an active role in decision-making and community representation.

Economic – Diverse, Vibrant, and Equitable:

- **Dot Distribution:** Balanced **green** and **yellow**, with minimal **red**.
- **Interpretation:** The economic environment in the Burnett Catchment is **relatively strong**, with good access to diverse employment opportunities and financial stability. Some gaps were noted in social safety nets.
- **Opportunity:** Strengthen support systems to ensure equitable economic resilience for all members of the community.

Natural – Sustained and Valued:

- **Dot Distribution:** More **red** and **yellow** **dots**, with fewer **greens**.
- **Interpretation:** Environmental sustainability is a critical **area for improvement** in the Burnett Catchment. Concerns were raised about the preservation of natural ecosystems and the integration of traditional knowledge in land management.

- **Opportunity:** Prioritise the protection of natural environments, leveraging traditional knowledge and community-driven sustainability practices.

Built – Sustainable, Robust, and Multi-Purpose:

- **Dot Distribution:** A balanced mix of **green**, **yellow**, and **red dots**.
- **Interpretation:** Infrastructure in the Burnett Catchment meets many community needs but **lacks consistency.** Accessibility and integration with natural environments were highlighted as **areas for improvement**.
- **Opportunity:** Enhance infrastructure planning to ensure accessibility and promote resilience while balancing environmental considerations.

Health and Safety – Reliable and Accessible:

- **Dot Distribution:** Heavy concentration of **red** and **yellow** **dots**.
- **Interpretation:** Health and safety mechanisms in the Burnett Catchment are perceived as **significant weaknesses**. Emergency planning, volunteer engagement, and resource availability require focused attention.
- **Opportunity:** Increase investment in local emergency services, enhance volunteer training, and establish reliable mechanisms for hazard mitigation and response.

Suggested Future Opportunities for the Burnett Catchment

Strengthen Health and Safety:

- Foster community-based emergency planning sessions and increase participation in volunteer training programs to improve emergency preparedness and response capabilities.

Cultural Empowerment and Inclusion:

- Collaborate with Indigenous leaders and cultural groups to integrate traditional knowledge into disaster preparedness and resilience-building efforts.

Enhance Environmental Sustainability:

- Explore funding opportunities and partnerships to protect natural ecosystems, with a focus on reducing vulnerabilities to flooding and other hazards in the catchment area.

Expand Risk Awareness Initiatives:

- Launch educational campaigns and interactive workshops to help communities better understand local hazards and take proactive measures to reduce risks.

Promote Integrated Action Across Sectors:

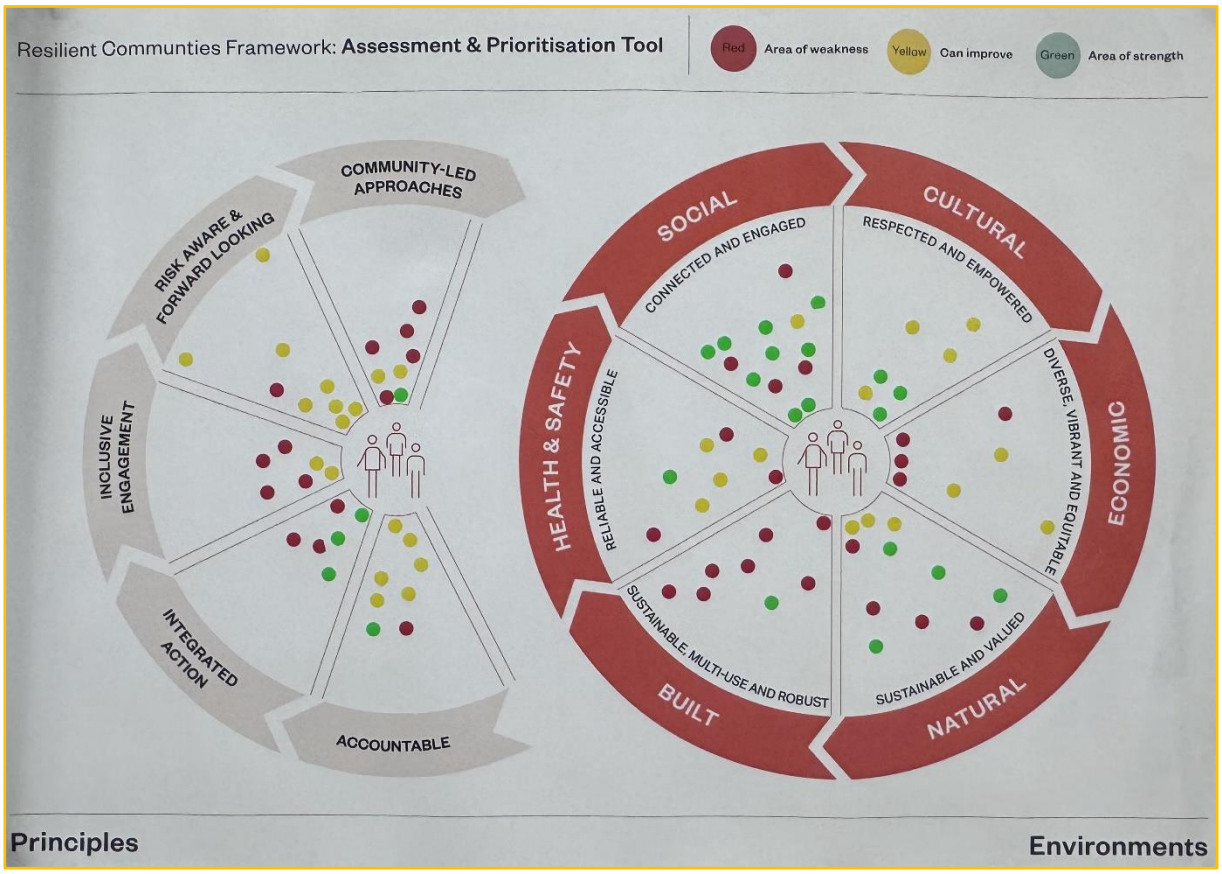
- Establish working groups or task forces that bring together representatives from different sectors to address interconnected vulnerabilities and plan collaboratively.

Leverage Existing Strengths:

- Build upon the strong foundations of community-led initiatives and accountability practices, using these as a model for addressing weaker areas.

By exploring these opportunities, the Burnett Catchment stakeholders can align resources, efforts, and strategies to create a more resilient and connected community.

Detailed Analysis of the Resilient Communities Framework for the Biggenden Stakeholder Event



Analysis of Principles

Community-Led Approaches:

- **Dot Distribution:** Primarily **green dots**, with some **yellows** and minimal **reds**.
- **Interpretation:** Biggenden stakeholders see **strong community-led** initiatives in place, with a focus on diversity and accountability. However, **minor gaps** in future planning and inclusivity were identified.
- **Opportunity:** Continue building on existing community-driven successes, while addressing identified gaps through more future-oriented planning.

Risk Aware & Forward-Looking:

- **Dot Distribution:** A mix of **yellow** and **red dots**, with fewer **greens**.
- **Interpretation:** Risk awareness and forward-looking strategies were highlighted as **key areas for improvement.** Stakeholders expressed concerns about the current level of preparedness for future hazards.
- **Opportunity:** Develop and implement education campaigns to improve understanding of risks and foster evidence-based resilience strategies.

Inclusive Engagement:

- **Dot Distribution:** Evenly spread across **red**, **yellow,** and **green.**
- **Interpretation:** There is **mixed feedback** on the inclusivity of community engagement efforts. While some positive steps are evident, **significant gaps** remain in reaching diverse groups effectively.
- **Opportunity:** Enhance outreach programs to involve underrepresented groups and ensure community-wide communication during disaster preparation and recovery efforts.

Integrated Action:

- **Dot Distribution:** Predominantly **yellow** and **red**, with fewer **green dots**.
- **Interpretation:** Collaboration across sectors **remains a challenge**, with vulnerabilities in siloed actions being a recurring issue. Integrated planning is **not yet consistently** achieved.
- **Opportunity:** Foster partnerships across sectors to close silos and enhance collaborative planning for disaster resilience.

Accountable:

- **Dot Distribution:** Mostly **green dots** with a few **yellow**.
- **Interpretation:** Stakeholders largely view accountability as a **strength**. Transparent processes and effective feedback mechanisms are in place.
- **Opportunity:** Maintain high standards of accountability and explore opportunities to make feedback processes more inclusive.

Analysis of Environments

Social – Connected and Engaged:

- **Dot Distribution:** Predominantly **green** with some **yellow** **dots**.
- **Interpretation:** Social cohesion and trust are **strong** within Biggenden's community. Stakeholders identified minor **areas for improvement** in broadening inclusion across generations and cultural groups.
- **Opportunity:** Build on strong social networks to ensure all community members feel connected and engaged.

Cultural – Respected and Empowered:

- **Dot Distribution:** More **red** and **yellow** dots than **green**.
- **Interpretation:** Cultural inclusivity and empowerment were seen as areas requiring **significant improvement**. Stakeholders highlighted gaps in celebrating diversity and incorporating Indigenous knowledge.
- **Opportunity:** Collaborate with cultural leaders to strengthen respect and representation and integrate traditional knowledge into community planning.

Economic – Diverse, Vibrant, and Equitable:

- **Dot Distribution:** Balanced mix of **green** and **yellow**, with **minimal red**.
- **Interpretation:** The economic environment is **relatively robust** in Biggenden, with strong employment opportunities and financial stability. However, **gaps exist** in social safety nets for vulnerable populations.
- **Opportunity:** Strengthen programs to support economic resilience for all, ensuring equitable access to resources and opportunities.

Natural – Sustained and Valued:

- **Dot Distribution:** A mix of **red** and **yellow** **dots**, with **minimal green**.
- **Interpretation:** Environmental sustainability is a **critical concern**. Stakeholders flagged gaps in protecting natural ecosystems and leveraging traditional environmental management practices.
- **Opportunity:** Prioritise natural resource management, integrating both modern and traditional practices to enhance sustainability.

Built – Sustainable, Robust, and Multi-Purpose:

- **Dot Distribution:** Predominantly **yellow** and **green**, with **some red**.
- **Interpretation:** Built infrastructure was noted as an area of **moderate strength** but requiring further work to meet diverse community needs. Accessibility and resilience of infrastructure remain **areas for improvement**.
- **Opportunity:** Improve infrastructure accessibility and ensure planning aligns with community diversity and sustainability goals.

Health and Safety – Reliable and Accessible:

- **Dot Distribution:** Heavy concentration of **red** and **yellow** **dots**.
- **Interpretation:** Health and safety emerged as a **significant weakness**. Stakeholders noted resource limitations in emergency services and gaps in community volunteerism for disaster response.
- **Opportunity:** Invest in emergency planning, training, and resourcing to build a more reliable and responsive health and safety framework.

Suggested Future Opportunities for Biggenden

Strengthen Risk Awareness:

- Develop interactive workshops and tools to enhance community knowledge of local hazards and build resilience at the household and organisational levels.

Enhance Cultural Inclusion:

- Collaborate with Indigenous leaders and cultural representatives to celebrate diversity and incorporate traditional practices into planning processes.

Promote Environmental Sustainability:

- Establish community-driven initiatives to protect and value natural ecosystems, with a focus on mitigating environmental risks like flooding and drought.

Invest in Health and Safety Infrastructure:

- Expand emergency service training programs and encourage community participation in volunteer disaster response roles.

Foster Integrated Action:

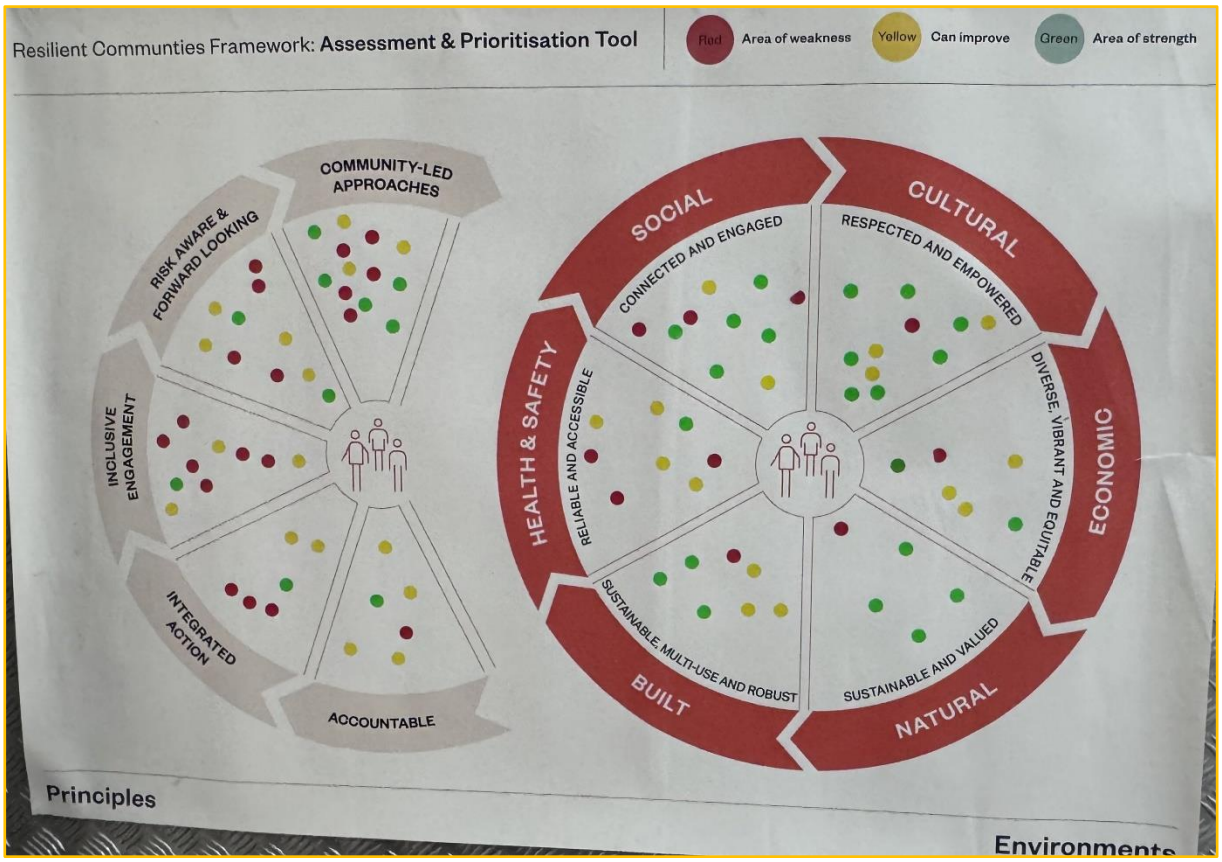
- Create cross-sector task forces to address siloed vulnerabilities and ensure cohesive planning and implementation across stakeholders.

Leverage Social Strengths:

- Build on the strong social networks in Biggenden to foster even greater collaboration and engagement, ensuring inclusion of underrepresented voices.

By pursuing these opportunities, Biggenden stakeholders can take meaningful steps toward addressing challenges while building upon existing community strengths for a more resilient future.

Detailed Analysis of the Resilient Communities Framework for the Monto Stakeholder Event



Analysis of Principles

Community-Led Approaches:

- **Dot Distribution:** A mix of **green** and **yellow** **dots**, with **minimal red**.
- **Interpretation:** The Monto community demonstrates considerable **strength** in community-led approaches. However, some participants noted **areas for improvement**, particularly in ensuring future planning is robust and inclusive.
- **Opportunity:** Expand efforts to include long-term, diverse, and sustainable projects that account for emerging community needs.

Risk Aware & Forward-Looking:

- **Dot Distribution:** Predominantly **yellow** and **red**, with **fewer greens**.
- **Interpretation**: Risk awareness and future-oriented strategies are perceived as **weaker** areas. Stakeholders identified significant **room for improvement** in hazard preparedness and understanding.

- **Opportunity:** Develop community workshops and awareness campaigns to improve collective understanding of risks and bolster preparedness efforts.

Inclusive Engagement:

- **Dot Distribution:** Predominantly **red** and **yellow** **dots**, with very **few greens**.
- **Interpretation:** Inclusive engagement is identified as a major **area of weakness**. There is a need to involve more diverse groups and ensure consistent communication across the community.
- **Opportunity:** Implement inclusive engagement strategies that focus on outreach to underrepresented groups and amplify local voices in decision-making.

Integrated Action:

- **Dot Distribution:** Heavy concentration of **red** and **yellow** **dots**.
- **Interpretation:** Siloed approaches and limited collaboration across sectors were evident concerns. Integrated action is a **critical gap** in Monto's resilience efforts.
- **Opportunity:** Foster partnerships and multi-sector collaborations to address vulnerabilities and promote unified planning.

Accountable:

- **Dot Distribution:** Primarily **green dots** with some **yellows**.
- **Interpretation:** Accountability is one of the **stronger** principles in the Monto community. Transparent feedback mechanisms are largely effective, though there is room to **strengthen inclusive accountability** practices.
- **Opportunity:** Continue to emphasise transparency and ensure feedback loops include all stakeholders for a more inclusive approach.

Analysis of Environments

Social – Connected and Engaged:

- **Dot Distribution:** A balance of **green** and **yellow** **dots**.
- **Interpretation:** Social connections in Monto are a **relative strength**, with strong community trust and engagement. However, there are **gaps** in reaching some community groups.
- **Opportunity:** Build on existing social networks to enhance engagement with marginalised or less connected community members.

Cultural – Respected and Empowered:

- **Dot Distribution:** More **red** and **yellow dots** than **green**.
- **Interpretation:** Stakeholders noted a **lack of respect** and empowerment for cultural diversity in Monto. There is **limited integration** of Indigenous knowledge and representation.

- **Opportunity:** Collaborate with cultural leaders to celebrate diversity and incorporate traditional practices into community planning.

Economic – Diverse, Vibrant, and Equitable:

- **Dot Distribution:** Balanced **yellow** and **green dots**, with **minimal red**.
- **Interpretation:** The economic environment is perceived as **relatively stable**, with opportunities for growth. Some **gaps remain** in providing equitable access to resources and opportunities for vulnerable populations.
- **Opportunity:** Strengthen economic support systems and focus on providing equal opportunities for all community members.

Natural – Sustained and Valued:

- **Dot Distribution:** Predominantly **red** and **yellow dots**.
- **Interpretation:** Environmental sustainability and the value placed on natural resources are identified as **weak points**. Stakeholders expressed concerns about the preservation of ecosystems and environmental hazards like floods.
- **Opportunity:** Increase investment in sustainable practices and leverage traditional environmental management knowledge to enhance natural resource resilience.

Built – Sustainable, Robust, and Multi-Purpose:

- **Dot Distribution:** A mix of **green**, **yellow**, and **red dots**.
- **Interpretation:** Built infrastructure demonstrates some **strengths** but has **notable gaps** in accessibility and resilience. Stakeholders highlighted the **need for improvements** to meet diverse community needs.
- **Opportunity:** Focus on improving infrastructure accessibility and investing in sustainable, future-proof designs.

Health and Safety – Reliable and Accessible:

- **Dot Distribution:** Heavy concentration of **red** and **yellow dots**.
- **Interpretation:** Health and safety systems were identified as **significant weaknesses**. Stakeholders raised concerns about emergency response capabilities and the availability of resources.
- **Opportunity:** Prioritise investment in emergency services, volunteer programs, and community-based safety initiatives.

Suggested Future Opportunities for Monto

Build Risk Awareness and Preparedness:

- Introduce targeted workshops, interactive tools, and simulations to educate the community on local hazards and improve preparedness.

Enhance Inclusive Engagement:

- Develop programs to connect with underrepresented groups and ensure their voices are heard in resilience planning.

Foster Integrated Action:

- Create cross-sector task forces to bridge silos and enable collaborative problem-solving for disaster resilience.

Celebrate and Empower Cultural Diversity:

- Work with Indigenous leaders and cultural representatives to integrate traditional knowledge and promote cultural inclusion.

Invest in Health and Safety:

- Strengthen local emergency services and encourage community participation in volunteer training and disaster preparedness initiatives.

Protect and Sustain Natural Environments:

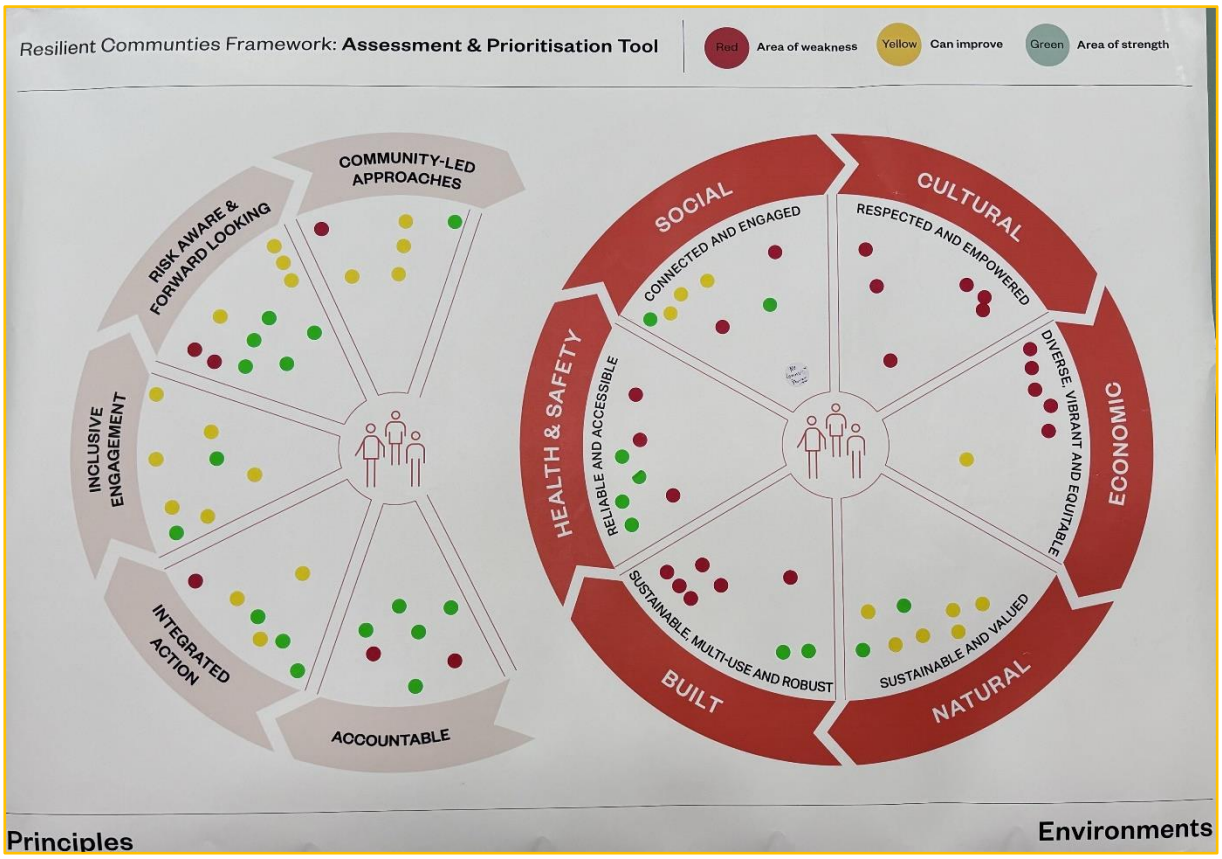
- Collaborate with environmental experts and community leaders to preserve ecosystems and promote sustainable land-use practices.

Leverage Economic Strengths:

- Build on the stable economic base by increasing access to resources and providing equitable opportunities for all residents.

By addressing identified weaknesses and capitalising on strengths, Monto can advance its resilience-building efforts and ensure a stronger, more connected community.

Detailed Analysis of the Resilient Communities Framework for the Mundubbera Stakeholder Event



Analysis of Principles

Community-Led Approaches:

- **Dot Distribution:** Mostly **yellow**, with some **green dots** and **minimal red**.
- **Interpretation:** Mundubbera stakeholders perceive community-led approaches as **moderately strong**, with **room to improve** in terms of sustainability and forward-looking initiatives.
- **Opportunity:** Build on the existing foundation by introducing new initiatives that are future-oriented and account for diverse community needs.

Risk Aware & Forward-Looking:

- **Dot Distribution:** A mix of **yellow** and **red dots**, with fewer **greens**.
- **Interpretation:** There is a clear **need for improvement** in risk awareness and preparedness. Stakeholders noted that current strategies **may not adequately** address future challenges.
- **Opportunity:** Implement training programs and campaigns to enhance risk knowledge and preparedness at both the household and community levels.

Inclusive Engagement:

- **Dot Distribution:** Predominantly **yellow** and **red**, with very few **greens**.
- **Interpretation:** Engagement with diverse groups and effective communication across the community are significant **areas of weakness**.
- **Opportunity:** Develop strategies to better involve underrepresented groups, ensuring that community engagement is inclusive and representative of all voices.

Integrated Action:

- **Dot Distribution:** Predominantly **yellow** and **red dots**, with minimal **greens**.
- **Interpretation:** Integrated action across sectors remains a challenge, with stakeholders **highlighting fragmentation** and the need for **stronger collaboration**.
- **Opportunity:** Foster multi-sector partnerships to bridge gaps and enable unified efforts toward disaster preparedness and resilience.

Accountable:

- **Dot Distribution:** Mostly **green dots**, with some **yellow**.
- **Interpretation:** Accountability is seen as one of Mundubbera's **strengths**, with stakeholders appreciating transparency and feedback mechanisms.
- **Opportunity:** Strengthen existing practices by involving a broader range of community members in accountability processes to increase inclusiveness.

Analysis of Environments

Social – Connected and Engaged:

- **Dot Distribution:** A balance of **green** and **yellow** **dots**.
- **Interpretation:** Social cohesion and trust are relative **strengths** in Mundubbera, though there are areas where **engagement can be broadened**.
- **Opportunity:** Build on strong social networks by ensuring all community members, including marginalised groups, are equally engaged and supported.

Cultural – Respected and Empowered:

- **Dot Distribution:** Primarily **red** and **yellow** **dots**, with **few greens**.
- **Interpretation:** Cultural inclusivity and empowerment were flagged as areas of **weakness**. Stakeholders expressed concerns about the **lack of representation and recognition** for cultural diversity.
- **Opportunity:** Work closely with cultural and Indigenous leaders to integrate traditional knowledge and promote greater cultural inclusion.

Economic – Diverse, Vibrant, and Equitable:

- **Dot Distribution:** A mix of **yellow** and **green**, with some **red dots**.
- **Interpretation:** While **economic stability** is evident, there are **gaps** in providing equitable opportunities and resources for vulnerable populations.
- **Opportunity:** Strengthen local economic initiatives that ensure equal access to resources and opportunities, especially for underserved groups.

Natural – Sustained and Valued:

- **Dot Distribution:** More **red** and **yellow** **dots**, with minimal **greens**.
- **Interpretation:** Environmental sustainability and natural resource management were highlighted as **weak areas**, with stakeholders concerned about the community's ability to mitigate environmental risks.
- **Opportunity:** Increase investments in sustainable land management and collaborate with environmental experts to address these weaknesses.

Built – Sustainable, Robust, and Multi-Purpose:

- **Dot Distribution:** A mix of **green**, yellow, and **red dots**.
- **Interpretation:** While some aspects of infrastructure are **strong**, **there are gaps** in resilience, accessibility, and inclusivity of built environments.
- **Opportunity:** Focus on improving infrastructure planning to ensure it is adaptable, accessible, and meets the diverse needs of the community.

Health and Safety – Reliable and Accessible:

- **Dot Distribution:** Heavy concentration of **red** and **yellow** **dots**.
- **Interpretation:** Health and safety systems were identified as significant **weaknesses**, with concerns raised about the adequacy of emergency services and preparedness.
- **Opportunity:** Prioritise the expansion of emergency services and volunteer programs, along with community training for disaster preparedness.

Suggested Future Opportunities for Mundubbera

Enhance Risk Preparedness:

- Develop community-focused education programs to increase awareness of local hazards and improve disaster readiness.

Foster Inclusive Engagement:

- Launch initiatives that actively engage underrepresented groups, ensuring that all voices are heard and included in resilience planning.

Promote Integrated Action:

- Establish collaborative networks across sectors to enhance coordination and ensure a unified approach to resilience-building.

Strengthen Cultural Representation:

- Work with cultural leaders to integrate traditional knowledge and promote inclusivity, ensuring cultural values are respected and celebrated.

Focus on Environmental Sustainability:

- Collaborate with stakeholders to protect natural ecosystems and implement sustainable land management practices that mitigate environmental risks.

Improve Health and Safety Services:

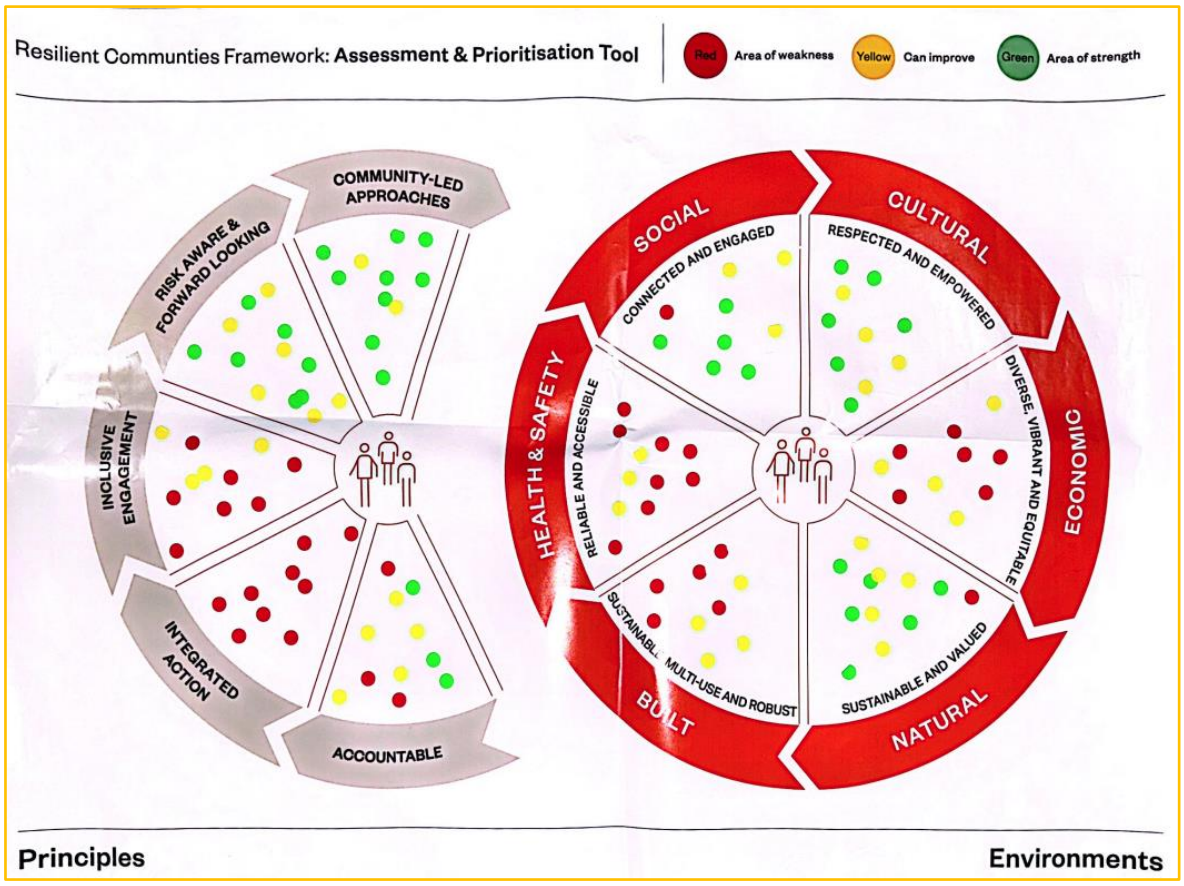
- Invest in emergency service infrastructure, train community volunteers, and develop clear response protocols to improve safety and preparedness.

Leverage Social Strengths:

- Build on the strong social cohesion within Mundubbera to further strengthen community connections and support systems.

By addressing these opportunities, Mundubbera can improve resilience, ensuring a more connected, inclusive, and sustainable community for the future.

Detailed Analysis of the Resilient Communities Framework for the Murgon Stakeholder Event



Analysis of Principles

Community-Led Approaches:

- **Dot Distribution:** Predominantly **green** and **yellow** **dots**, with **minimal red**
- **Interpretation:** Murgon is perceived as having **strong** community-led initiatives, with most efforts seen as effective but still **requiring some improvement** in inclusivity and long-term planning.
- **Opportunity:** Build on existing leadership and strengthen diverse, future-oriented community projects.

Risk Aware & Forward-Looking:

- **Dot Distribution:** Predominantly **yellow** and **red dots** with very **few greens**.
- **Interpretation:** Risk awareness and preparedness for future events are identified as **weak** points, indicating a gap in understanding and planning for hazards.
- **Opportunity:** Develop risk education campaigns and involve the community in creating evidence-based resilience strategies.

Inclusive Engagement:

- **Dot Distribution:** Balanced between **red** and **yellow** **dots**, with very few greens.
- **Interpretation:** Engaging diverse groups effectively remains a **significant challenge** in Murgon, with stakeholders highlighting gaps **in representation and communication.**
- **Opportunity:** Implement strategies to enhance community outreach and ensure broader inclusion across social, cultural, and economic groups.

Integrated Action:

- **Dot Distribution:** Mostly **yellow** **dots**, with a few **red** and **green dots**
- **Interpretation:** There is **some collaboration** across sectors, but silos still exist, hindering unified resilience-building efforts.
- **Opportunity:** Foster greater cross-sector collaboration and create task forces to address overlapping vulnerabilities.

Accountable:

- **Dot Distribution:** Mostly **green dots**, with some **yellow**.
- **Interpretation:** Accountability is a **strength** in Murgon, with transparent decision-making processes recognised by stakeholders.
- **Opportunity:** Continue ensuring transparency while involving a more diverse range of voices in accountability mechanisms.

Analysis of Environments

Social – Connected and Engaged:

- **Dot Distribution:** Predominantly **green** and **yellow** **dots**, with minimal **red**.
- **Interpretation:** Social cohesion and trust are perceived as **strengths**, with most community members **feeling connected and engaged**.
- **Opportunity:** Strengthen these connections by addressing minor inclusivity gaps and extending engagement to marginalised groups.

Cultural – Respected and Empowered:

- **Dot Distribution:** Mostly **red** and **yellow** **dots**, with very **few greens**.
- **Interpretation:** Cultural inclusion and empowerment are seen as areas requiring significant improvement. Concerns were raised about the **lack of representation and respect** for cultural diversity.
- **Opportunity:** Collaborate with Indigenous leaders and other cultural representatives to promote inclusivity and celebrate cultural diversity.

Economic – Diverse, Vibrant, and Equitable:

- **Dot Distribution:** Balanced between **yellow** and **green dots**, with **some red**.
- **Interpretation:** Murgon shows relative economic stability but struggles to ensure **equitable opportunities** and resources for all community members.
- **Opportunity:** Expand economic initiatives to include vulnerable populations and address gaps in equitable access to resources.

Natural – Sustained and Valued:

- **Dot Distribution:** Predominantly **yellow** and **red dots**, with very **few greens**.
- **Interpretation:** Environmental sustainability and preservation are key areas of **weakness**. Stakeholders noted the need for better management of natural resources and mitigation of environmental hazards.
- **Opportunity:** Invest in sustainable practices and integrate traditional land management knowledge to improve environmental resilience.

Built – Sustainable, Robust, and Multi-Purpose:

- **Dot Distribution:** Balanced **yellow**, **green**, and **red dots**
- **Interpretation:** The built environment shows some **strength**, with stakeholders identifying functional infrastructure, but **resilience and accessibility remain concerns**.
- **Opportunity:** Focus on enhancing infrastructure resilience and ensuring that community needs are met in a sustainable manner.

Health and Safety – Reliable and Accessible:

- **Dot Distribution:** Predominantly **red** and **yellow dots**.
- **Interpretation:** Health and safety systems were consistently rated as **weak**, **with gaps** in emergency preparedness and access to resources.
- **Opportunity:** Increase investment in emergency services and community training programs to address these weaknesses.

Key Strengths

- **Accountability:** Consistently rated as a **strong area**, demonstrating effective transparency and trust in decision-making processes.
- **Social Connectedness:** High levels of **engagement** and **trust** within the community, with opportunities to **strengthen inclusivity.**

Key Weaknesses

- **Health and Safety:** Identified as a major **weakness** with significant gaps in preparedness and resource allocation.

- **Cultural Inclusion:** A persistent challenge, with a **need to improve** representation and respect for cultural diversity.
- **Natural Environment:** **Weak management** of natural resources and environmental risks.

Opportunities for Improvement

Enhance Risk Awareness:

- Develop community education programs on local hazards and preparedness strategies.

Promote Inclusive Engagement:

- Establish initiatives to involve underrepresented groups in decision-making processes.

Foster Cross-Sector Collaboration:

- Create collaborative task forces to address overlapping vulnerabilities and strengthen unified action.

Invest in Health and Safety:

- Expand emergency response capabilities and increase volunteer involvement in community safety initiatives.

Focus on Environmental Sustainability:

- Prioritise sustainable land-use practices and leverage traditional knowledge to protect natural resources.

Celebrate Cultural Diversity:

- Partner with cultural and Indigenous leaders to integrate their perspectives into planning and decision-making.

This analysis highlights Murgon's strengths in **accountability** and **social cohesion**, while identifying significant opportunities to improve in areas like **health and safety, cultural inclusion, and natural resource management**. These insights can guide targeted interventions to strengthen resilience.

Comparison of Stakeholder Results to the Four Communities (Monto, Biggenden, Mundubbera, and Murgon)

This comparison highlights the **similarities** and **discrepancies** between the overall **stakeholder results** and the **community-specific results** for the four locations, focusing on **Principles** and **Environments** as defined in the Resilient Communities Framework (RCF).

Similarities Across All Locations

Accountability:

- **Stakeholders and Communities**: Both groups agree that **Accountability** is a consistent **strength** across all communities. This reflects effective transparency and trust in decision-making processes.
- **Alignment**: Stakeholders and communities both value existing mechanisms for feedback and transparency, which are largely seen as **functioning well**

Health and Safety:

- **Stakeholders and Communities**: Universally identified as a **weakness** by both stakeholders and all four communities, with **significant gaps** in emergency preparedness, resource allocation, and volunteer engagement.
- **Alignment**: Both groups recognise the urgent need for improvements in this area, such as better planning, training, and resourcing.

Risk Awareness and Forward-Looking:

- **Stakeholders and Communities**: Consistently rated as a **weakness** across all locations, with concerns about **limited understanding** of risks and insufficient future planning.
- **Alignment**: There is broad agreement on the need for education and evidence-based strategies to address these shortcomings.

Cultural Inclusion and Empowerment:

- **Stakeholders and Communities**: Identified as a **weakness** across all locations, with both groups highlighting the **underrepresentation of cultural diversity**, including Indigenous voices.
- **Alignment**: Both groups see opportunities for improvement in integrating cultural knowledge and celebrating diversity.

Natural Environment:

- **Stakeholders and Communities:** Both groups recognise **environmental sustainability** critical **weakness**, particularly in managing natural resources and mitigating hazards like floods and droughts.
- **Alignment**: Shared emphasis on the need for sustainable practices and traditional land management integration.

Discrepancies Between Stakeholders and Communities

Community-Led Approaches:

- **Stakeholders**: Rated higher, with **green dots** dominating, reflecting confidence in local leadership and initiatives.
- **Communities**: Mixed responses; **Monto** rated this area highly, while **Biggenden**, **Mundubbera**, and **Murgon** identified more gaps in inclusivity and planning.
- **Discrepancy**: Stakeholders may overestimate the effectiveness of community leadership or underestimate the inclusivity concerns raised by the communities.

Social Connectedness:

- **Stakeholders**: Generally rated as a **strength**, with high levels of trust and engagement noted.
- **Communities**: While **Biggenden** rated this as a **strength** **Monto**, **Mundubbera**, and **Murgon** noted gaps in engaging marginalised groups, with more **yellow dots** reflecting areas for improvement.
- **Discrepancy**: Stakeholders appear to overlook specific inclusivity challenges faced by certain communities.

Integrated Action:

- **Stakeholders**: Identified as a significant **weakness**, emphasising persistent silos and limited cross-sector collaboration.
- **Communities**: Mixed feedback; **Monto** showed some progress, while **Biggenden**, **Mundubbera**, and **Murgon** reflected more consistent challenges.
- **Discrepancy**: Stakeholders see this as a larger issue across all communities, while some locations (like Monto) see pockets of **collaboration emerging**.

Economic Vibrancy:

- **Stakeholders**: Generally **rated positively** emphasising economic stability and diverse opportunities.
- **Communities**: More mixed; **Biggenden** and **Monto** were optimistic, while **Mundubbera** and **Murgon** highlighted broader economic inequities and gaps in access to resources.

- **Discrepancy**: Stakeholders may not fully recognise economic disparities experienced by vulnerable populations.

Built Environment:

- **Stakeholders**: Rated more **critically**, with concerns about resilience, accessibility, and adaptability.
- **Communities**: Responses varied; **Monto** and **Biggenden** were **slightly more positive**, while **Mundubbera** and **Murgon** identified **more weaknesses**.
- **Discrepancy**: Stakeholders may emphasise long-term resilience, while communities focus on immediate functionality.

Unique Variations Across Communities

Monto:

- Rated **strongest** in **Community-Led Approaches** and **Integrated Action,** with more optimism about collaboration and leadership.
- Stakeholders were less positive, emphasising broader gaps in integration and planning

Biggenden:

- Highlighted as having the **strongest** **Social Connectedness** of the four communities, aligning closely with stakeholder perceptions.
- Slightly more positive about the **Built Environment** compared to stakeholders.

Mundubbera:

- Rated **weakest** in most categories, particularly in **Inclusivity**, **Cultural Respect**, and **Health and Safety**.
- Stakeholders consistently aligned with these challenges but saw **Integrated Action** and **Built Environment** as even **weaker** than communities indicated.

Murgon:

- Showed mixed results, with **Accountability** and **Social Connectedness** **rated highly significant gaps** in **Cultural Inclusion**, **Health and Safety**, and **Natural Environment**.
- Stakeholders echoed these **weaknesses** but were slightly more critical of **Integrated Action** and the **Built Environment**.

Key Observations

Alignment:

- Both stakeholders and communities agree on **core weaknesses** in **Health and Safety**, **Risk Awareness**, **Cultural Inclusion**, and **Natural Environment**.
- **Strengths** like **Accountability** are consistently recognised across groups.

Differences:

- Stakeholders tend to rate systemic issues (e.g., **Integrated Action**, **Built Environment**) **more critically**, while communities focus on immediate challenges (e.g., inclusivity and economic inequities).
- Communities are often more optimistic about **localised strengths** (e.g., **Community-Led Approaches** in Monto and **Social Connectedness** in Biggenden).

Unique Community Insights:

- **Monto** emerges as a leader in community-driven initiatives.
- **Biggenden** stands out for its strong social fabric.
- **Mundubbera** faces the most significant challenges across the board.
- **Murgon** shows potential in accountability but struggles with inclusivity and sustainability.

Recommendations for Bridging Stakeholder-Community Discrepancies

Incorporate Community Voices in Strategic Planning:

- Stakeholders should integrate community-specific insights to better address unique challenges and capitalise on localised strengths.

Focus on Inclusive Solutions:

- Address disparities in **Social Connectedness**, **Cultural Respect**, and **Economic Vibrancy** by prioritising underrepresented voices and vulnerable groups.

Strengthen Collaboration:

- Promote cross-sector partnerships to improve **Integrated Action** and **Risk Awareness**, areas consistently identified as **weaknesses**.

Balance Short-Term Needs with Long-Term Resilience:

- Stakeholders should balance their focus on infrastructure resilience and systemic issues with the immediate concerns raised by communities.

By addressing these similarities and discrepancies, stakeholders can align their efforts with community priorities and foster more effective, inclusive resilience-building strategies.

Analysis of Differences Between the Four Community Results

Each community (**Monto**, **Biggenden**, **Mundubbera**, and **Murgon**) provided feedback on their resilience using the **Resilient Communities Framework (RCF).** Below is a detailed analysis comparing how these communities rated themselves across the **Principles** and **Environments**, highlighting **key differences** and possible explanations.

Principles

Community-Led Approaches:

- **Monto:** Rated as a **strength** (predominantly **green dots**), with confidence in local leadership and initiatives.
- **Biggenden:** Moderately strong (**yellow** and **green dots),** showing some successes but room for improvement in long-term sustainability.
- **Mundubbera: Weaker** feedback (mostly **yellow dots**), with gaps in inclusivity and future focused leadership.
- **Murgon**: Similar to Mundubbera, with **yellow** and **green dots** indicating **moderate performance** but not strong leadership.
- **Comparison:** Monto stands out as the leader in community-driven initiatives, while Mundubbera and Murgon lag behind due to concerns about inclusivity and strategic planning.

Risk Aware & Forward-Looking:

- **Monto:** Mostly **yellow and red dots**, showing weaknesses but slightly more optimism than other communities.
- **Biggenden:** Similar distribution, indicating **widespread concerns** about risk preparedness.
- **Mundubbera:** Heavily weighted toward **red dots**, indicating significant gaps in understanding and mitigating risks.
- **Murgon:** Slightly stronger than Mundubbera but still predominantly **yellow and red dots,** reflecting weak risk awareness.
- **Comparison:** Risk awareness is a consistent **weakness**, but Monto shows slightly more optimism than other communities, while Mundubbera performs the worst.

Inclusive Engagement:

- **Monto:** Mixed results, with **red** and **yellow dots**, reflecting concerns about inclusivity.
- **Biggenden:** Similar
- **Mundubbera:** The weakest of the four, with few **green dots** and a high concentration of **red dots**
- **Murgon:** Similar to Mundubbera, with **significant challenges** in inclusivity.
- **Comparison:** Inclusive **engagement is weak** across all communities, with Mundubbera and Murgon facing the most significant barriers.

Integrated Action:

- **Monto:** Shows moderate performance, with a mix of **red yellow,** and **green dots**.

- **Biggenden:** Slightly weaker, with predominantly **yellow** and **red dots**.
- **Mundubbera:** Similar to Biggenden, showing **little collaboration** and a lack of integration.
- **Murgon:** Slightly better than Mundubbera and Biggenden, with a few **green dots** but still dominated by **yellow dots**.
- **Comparison:** Monto is the most integrated, showing some progress in collaboration, while Biggenden and Mundubbera highlight persistent silos.

Accountable:

- **Monto:** Consistently strong, with **mostly green dots**, reflecting robust transparency.
- **Biggenden:** Similar performance to Monto, showing **strong** accountability.
- **Mundubbera:** Weaker, with a mix of **green** and **yellow dots**, indicating some gaps in transparency.
- **Murgon:** Similar to Mundubbera, with a mix of **green** and **yellow dots**.
- **Comparison:** Accountability is a **shared strength** though Mundubbera and Murgon show slightly less confidence compared to Monto and Biggenden.

Environments

Social – Connected and Engaged:

- **Monto**: Moderate results, with **green** and **yellow dots**, showing good social cohesion but gaps in inclusivity.
- **Biggenden**: Strongest feedback, with predominantly **green dots**, indicating high levels of trust and connection.
- **Mundubbera**: Moderate, with a mix of **yellow** and **green dots**.
- **Murgon**: Similar to Mundubbera, with **moderate results** but fewer **green dots** than Biggenden.
- **Comparison**: Biggenden is the **strongest** in social connectedness, while Murgon and Mundubbera exhibit more gaps.

Cultural – Respected and Empowered:

- **Monto**: Weak feedback, with **mostly red** and **yellow dots**, reflecting challenges in cultural representation.
- **Biggenden**: Similar results, with minimal **green dots** and concerns about inclusivity.
- **Mundubbera**: The weakest of the four, with a high concentration of **red dots**.
- **Murgon**: Slightly better than Mundubbera, with more **yellow dots**, but still a significant area **weakness.**

- **Comparison**: **Cultural inclusion is weak** across all communities, with Mundubbera facing the most significant challenges.

Economic – Diverse, Vibrant, and Equitable:

- **Monto**: Moderate results, with a mix of **green** and **yellow dots**, reflecting relative economic stability.
- **Biggenden**: Slightly stronger, with more **green dots**, indicating positive economic conditions.
- **Mundubbera**: Weaker feedback, with a higher proportion of **yellow dots**, reflecting broader economic inequities.
- **Murgon**: Similar to Mundubbera, with **mixed feedback** but slightly better performance in economic vibrancy.
- **Comparison**: Biggenden is the **strongest** economically, while Mundubbera struggles the most with equity and access.

Natural – Sustained and Valued:

- **Monto**: Weak results, with **predominantly red** and **yellow dots**, reflecting concerns about sustainability.
- **Biggenden**: Similar distribution, showing **limited progress** in environmental management.
- **Mundubbera**: Slightly better, with more **yellow dots** than **red**.
- **Murgon**: Similar to Mundubbera, with emerging efforts but still predominantly **yellow dots.**
- **Comparison**: Environmental sustainability is a **weakness** across all locations, though Mundubbera and Murgon show slightly more optimism than Monto and Biggenden.

Built – Sustainable, Robust, and Multi-Purpose:

- **Monto**: Mixed feedback, with **green, yellow, and red dots**, showing moderate satisfaction with infrastructure.
- **Biggenden:** Similar results, indicating functional infrastructure with **room for improvement**.
- **Mundubbera:** Slightly weaker, with more **red** and **yellow dots**.
- **Murgon:** Similar to Mundubbera, with **moderate performance** but notable
- **Comparison:** While all communities rate infrastructure moderately, Mundubbera and Murgon face more **significant challenges**.

Health and Safety – Reliable and Accessible:

- **Monto:** Weak feedback, dominated by **red** and **yellow dots**, reflecting **major gaps** emergency preparedness.
- **Biggenden:** Similar results, showing widespread **dissatisfaction**.
- **Mundubbera:** The **weakest**, with the highest concentration of **red dots**.

- **Murgon:** Similar to Mundubbera, with **significant gaps** but slightly more **optimism**.
- **Comparison: Health and safety** are a **universal weakness**, with Mundubbera performing worst.

Key Observations

Strongest Community:

- **Biggenden** stands out for its **Social Connectedness** and **Economic Stability**, showing the **strongest** overall performance.

Most Challenged Community:

- **Mundubbera** faces the most **significant challenges** across all categories, particularly **Inclusivity, Cultural Respect,** and **Health and Safety.**

Emerging Strengths:

- **Monto** **excels** in **Community-Led Approaches** and **Integrated Action**, demonstrating localised leadership and collaboration potential.

Areas of Consistent Weakness:

- **Health and Safety, Cultural Inclusion**, and **Natural Environment** are **weak** across all communities, highlighting systemic challenges.

Conclusion

The communities show unique strengths and challenges. **Biggenden** demonstrates strong social cohesion and economic vibrancy, **Monto** shows leadership in community-driven efforts, **Mundubbera** faces the most barriers, and **Murgon** sits in the middle, with moderate performance but gaps in inclusivity and sustainability. Tailored interventions are required to address these differences effectively.

CRITICAL INFRASTRUCTURE – STAKEHOLDER ASSESSMENT

The Burnett Catchment Stakeholder Event brought together key community members, local leaders, emergency service representatives, and stakeholders to collectively map and evaluate the region's critical infrastructure assets and vulnerabilities before and after potential disaster events. This collaborative session aimed to identify critical infrastructure, highlight pre-disaster preparedness measures, and prioritise post-disaster restoration efforts to ensure community safety and continuity.

The Burnett Catchment, characterised by its diverse landscapes, agricultural significance, and dispersed population centres, faces unique challenges in disaster management. From floods and storms to power outages and transport disruptions, the region requires coordinated efforts to mitigate risks, enhance preparedness, and recover swiftly when disasters strike. The stakeholder event focused on building a shared understanding of these risks and determining the most effective pathways to resilience. The event also served as a platform for stakeholders to exchange knowledge, outline localised challenges, and foster collaboration between communities and agencies.

This was conducted in two parts the **First:** what is considered critical during normal business as usual operations and day to day life, represented by a **White Dot** on the map, and the **Second:** 72hrs post a natural hazard impact that has caused disruption and dislocation in the community and to public administration and services represented by a **Red Dot** on the map.

Critical Before **Critical After**

This part of the report provides a comprehensive analysis of the findings from the stakeholder event, highlighting the pre-disaster importance of critical assets and post-disaster priorities for recovery. By capturing these insights, the report aims to inform planning, strengthen disaster preparedness strategies, and build a more resilient Burnett Catchment.

Monto

Before (White Dots):

- **Hospital and Aged Care Facility:** Recognised as critical for health and safety. These facilities provide emergency medical services and are integral to vulnerable populations like the elderly during crises.
- **SES Shed:** Identified as a central hub for emergency response operations, including the coordination of resources like water and power. These facilities are crucial for rapid response to disasters.
- **Community Hall:** Highlighted as a gathering place for community meetings and a potential evacuation centre during disasters. These spaces serve as a focal point for information dissemination.

After (Red Dots):

- **Roads, Power, and Water Restoration:** These services were identified as critical for recovery, enabling access for emergency vehicles, restoring water for drinking and sanitation, and re-establishing electrical grids.
- **Football Field and EVRC (Emergency Volunteer Resource Centre):** These facilities were marked for their importance in fostering community recovery, acting as rallying points for volunteers and resources.
- **Airstrip:** The airstrip gained significance in post-disaster phases, serving as a lifeline for transporting supplies and personnel during recovery operations.

Mount Perry

Before (White Dots):

- **Mount Perry Hospital:** A key health infrastructure providing primary and emergency care. Its location in a remote area highlights its importance for disaster preparedness.
- **Power and Water Facilities:** Essential utilities for supporting the hospital, businesses, and residential areas during pre-disaster phases.
- **SES Shed:** Serving as the epicentre for emergency management, the shed's resources include equipment for search, rescue, and cleanup operations.

After (Red Dots):

- **Roads and Power Repairs:** The restoration of access routes and energy infrastructure was identified as crucial for Mount Perry's recovery and connectivity with neighbouring regions.
- **Community Hall:** Marked for its role in recovery efforts as a venue for community activities, fostering cohesion and providing a space for meetings.

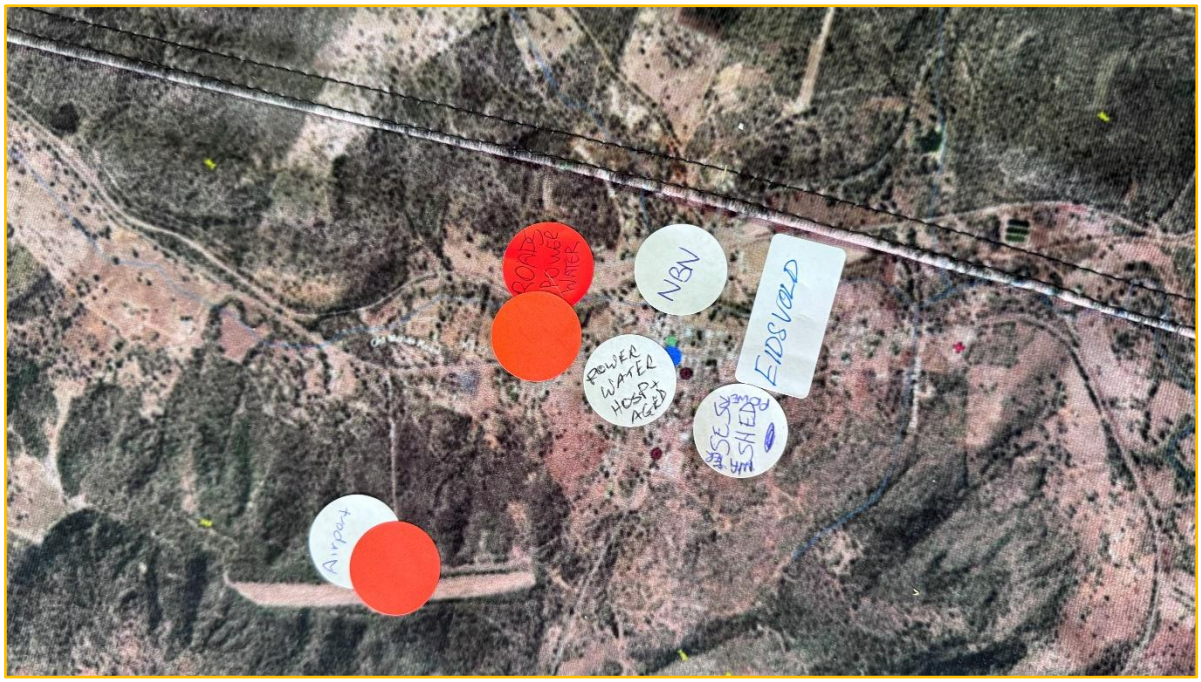
Eidsvold

Before (White Dots):

- **SES Shed and Community Hall:** Both highlighted as critical for emergency response and evacuation, respectively. Their availability enhances preparedness and immediate post-disaster responses.
- **NBN Tower:** Ensures stable internet and telecommunications, vital for coordinating disaster response efforts.
  School: Identified as a potential evacuation site due to its size and accessibility.

After (Red Dots):

- **Hospital and Utilities:** Restoration of power, water, and hospital facilities emerged as urgent needs post-disaster to ensure public health and functionality.
- **Roads:** Accessibility was prioritised to enable mobility and the delivery of essential supplies to affected areas.



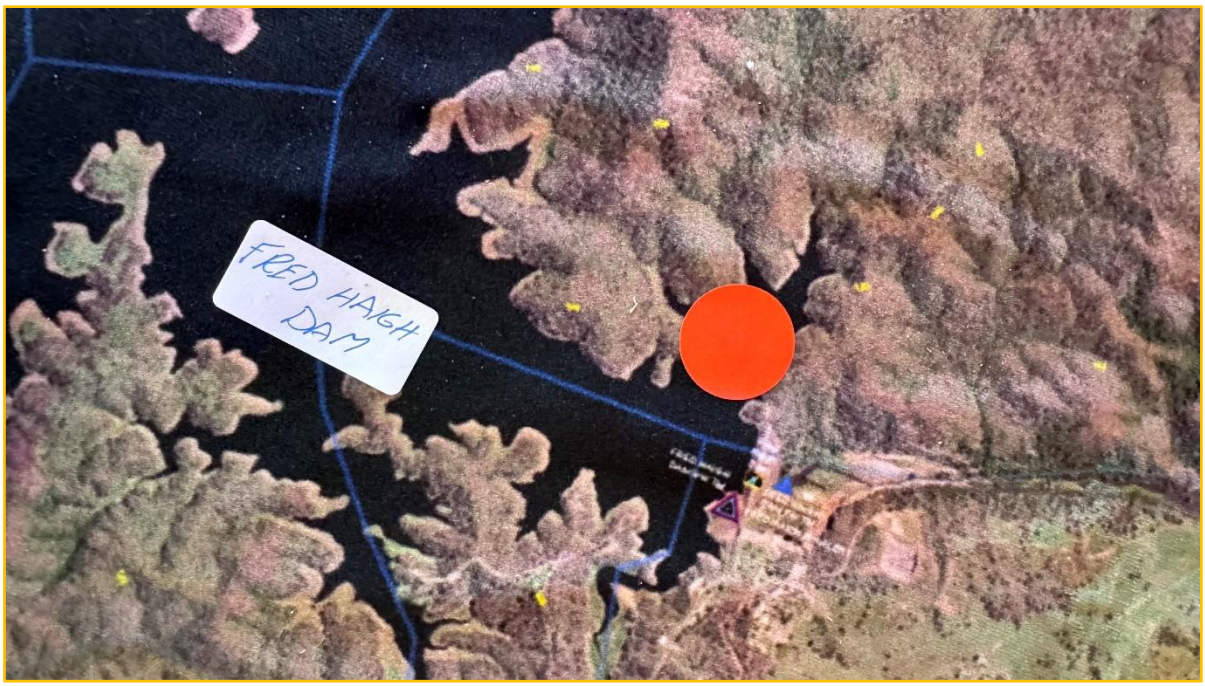
Fred Haigh Dam

Before (White Dots):

- **Dam Infrastructure:** Recognised as a critical resource for water supply, irrigation, and flood control. Its structural integrity is vital for mitigating downstream flood impacts.
- **Access Roads:** Key to maintaining operational efficiency and ensuring emergency access in case of infrastructure damage.

After (Red Dots):

- **Water Infrastructure Repairs:** The dam's functionality was a top priority, emphasising its role in regional water security and disaster mitigation.
- **Access Roads Restoration:** Necessary for enabling operational continuity and community connectivity.



Tim Fisher Bridge

Before (White Dots):

- **Transportation Link:** The bridge was highlighted as a vital connector for communities and as a route for goods transportation.
- **Access to Services:** The bridge supports connectivity to healthcare, education, and emergency services.

After (Red Dots):

- **Bridge Repairs:** Emphasis was placed on restoring this critical link, ensuring safe and efficient transportation for emergency and recovery efforts.

Burnett River Region

Before (White Dots):

- **Power Lines and Communication Towers:** Identified as the backbone of the region's infrastructure, supporting everything from business operations to disaster response coordination.
- **Waterways:** These were crucial for irrigation, drinking water, and flood control measures.

After (Red Dots):

- **Flood Impact Repairs:** Marked areas along the Burnett River needing cleanup and reinforcement to mitigate future disaster risks.
- **Recreational Facilities:** Identified for restoration to support community recovery, including the mental well-being of residents.

Biggenden

Before (White Dots):

- **Hospital and SES Shed:** Key pre-disaster facilities for health and emergency coordination.
- **Power and Water Facilities:** Essential for sustaining day-to-day activities and supporting disaster response operations.

After (Red Dots):

- **Road and Utility Repairs:** These were highlighted as immediate needs to restore functionality and mobility across the community.

Rural Properties and Farming Areas

Before (White Dots):

- **Power Lines and Water Supply Systems:** Marked as critical for supporting agriculture, the region's economic backbone.
- **Access Roads:** Vital for transporting goods, equipment, and personnel.

After (Red Dots):

- **Infrastructure Restoration:** Priorities included repairing water systems and roads to ensure the resilience of agricultural operations and rural communities.

Munna Creek and Surrounding Areas

Before (White Dots):

- **Power and Communication Infrastructure:** Identified as essential for supporting the small, dispersed populations in the area.
- **Waterways:** Highlighted for their significance in community livelihoods and flood mitigation.

After (Red Dots):

- **Flood Damage Repairs:** Restoration efforts focused on waterways and surrounding infrastructure to mitigate future risks and support agricultural recovery.
- **Road Repairs:** Addressed to ensure access and connectivity.

Key Themes and Observations Across All Locations

Pre-Disaster (White Dots):

- **Health Infrastructure:** Hospitals and aged care facilities were central to preparedness.
- **Emergency Services (SES Sheds):** Identified as hubs for disaster response.
- **Utilities and Communication:** Power, water, and NBN infrastructure were foundational to resilience.
- **Evacuation and Gathering Points:** Community halls and schools were highlighted for their dual roles in normal and emergency operations.

Post-Disaster (Red Dots):

- **Restoration of Essential Services:** Emphasis on power, water, and communication

- **Connectivity:** Roads, bridges, and airstrips were key priorities for enabling recovery efforts and improving accessibility.
- **Community Recovery Spaces:** Facilities like football fields, halls, and recreational areas were highlighted for their importance in fostering social cohesion and aiding

Conclusion

The stakeholder mapping session provided critical insights into pre- and post-disaster priorities for the Burnett Catchment. By identifying key infrastructure and their restoration needs, the event underscored the importance of holistic planning, immediate action in disaster recovery, and long-

CRITICAL INFRASTRUCTURE – COMMUNITY ASSESSMENT

Community Events

The Community Big Map events identified key infrastructure and community trigger points that are critical for disaster preparedness and recovery. This detailed analysis categorises these elements into critical infrastructure to monitor before a disaster, critical infrastructure required after an event, and community-specific triggers for preparation. This was conducted in three parts the **First:** what is considered critical during normal business as usual operations and day to day life represented by a **White Dot**, the **Second:** What is critical 72hrs post a natural hazard impact that is required to assist in immediate recovery represented by a **Red Dot,** and **Third:** what are the triggers that would see you commence preparation activities represented by a **Brown Dot**.

This report provides an expanded analysis of these elements and their implications for disaster management in the Burnett Catchment region. The findings from the Big Map events provide valuable insights into the region's disaster preparedness framework. By understanding the interplay between critical infrastructure and community action, communities can enhance its resilience to future disasters and reduce the socioeconomic impacts of extreme events.

Critical Infrastructure Analysis for Monto

Critical Infrastructure to Monitor Before (White

This category focuses on infrastructure and locations that require regular monitoring and maintenance before a disaster to ensure community safety and operational readiness. These assets are essential to maintaining normalcy and providing immediate support during a disaster.

- **School**: Schools are vital for sheltering and education. Ensuring that schools have up-to-date emergency plans, functional communication systems, and trained staff is critical. Regular assessments should be conducted to evaluate the structural integrity of buildings and accessibility of evacuation routes.
- **Hospital**: Hospitals play a pivotal role in managing casualties and addressing health crises during disasters. Emergency readiness should focus on maintaining an uninterrupted power supply (e.g., functional backup generators), adequate medical supplies, and communication systems to coordinate with emergency services.
- **Food Stores**: Food stores are critical to community resilience as they provide access to essential supplies. Monitoring stock levels before disasters ensures food security. Partnerships with suppliers and local authorities can facilitate quick resupply in case of disruptions.

- **Pharmacy**: Pharmacies are key in ensuring access to essential medications. Before disasters, pharmacy stocks of medications for chronic conditions (such as insulin or heart medication) must be checked to meet potential surges in demand.
- **Monto Weir**: The weir is a significant asset for water management. Monitoring water levels and conducting routine inspections for structural integrity reduces the risk of uncontrolled flooding. Early action here could prevent downstream effects on communities.

Critical Infrastructure Impacted After (Red Dots)

disaster, certain infrastructure elements are likely to experience damage or become non-operational, hindering relief efforts and community recovery. These areas are focal points for immediate action.

- **Power Outage**: Power infrastructure is often among the first to fail in disaster situations, impacting households, businesses, and emergency operations. Outages lead to challenges such as communication breakdowns and food spoilage. Restoration efforts need to prioritise critical facilities such as hospitals and water treatment plants.
- **Flooding in Monto Town**: Flood-prone areas within Monto are vulnerable to significant disruptions. This includes homes, businesses, and access roads. Unaddressed flooding impacts the local economy, displaces families, and poses long-term recovery challenges.
- **Bridge Damage**: Damage to bridges affects transportation and supply chains. In Monto, specific bridges that provide key access to rural areas may become impassable, isolating residents, and hindering emergency response.
- **Road Access Blocked**: Landslides, debris, and water inundation commonly block rural and regional roads. Clearing roadways quickly is critical for the movement of emergency vehicles, supply deliveries, and evacuations.
- **Phone Lines Down**: Communication outages caused by downed landlines and cell towers create a barrier to coordinating disaster response. This also disrupts community members' ability to access updates or request assistance.

Community Triggers to Prepare (Brown Dots)

These are specific indicators or events that signal the community to begin preparing for a disaster. Early recognition of these triggers can mitigate impacts and reduce the time required for recovery.

- **Gauge Station**: Real-time monitoring of water levels at gauge stations provides early warning for floods. Community awareness campaigns should emphasise the importance of these readings and how they correlate with evacuation
- **Edison Creek Monitoring**: Creeks in the region, like Edison Creek, are prone to overflow, particularly during heavy rains. These localised flooding events may serve as precursors to more widespread impacts, making them critical for early
- **Spillway Alert**: Spillways are integral to managing water overflow from dams. Communities need to be prepared for spillway releases, as these can cause sudden increases in downstream water levels. Pre-emptive evacuation plans should align with spillway release protocols.
- **River Height Warnings**: Communities living near rivers must be vigilant about rising water levels. Height markers, paired with accessible communication channels, can trigger precautionary actions such as moving livestock or relocating valuable possessions.

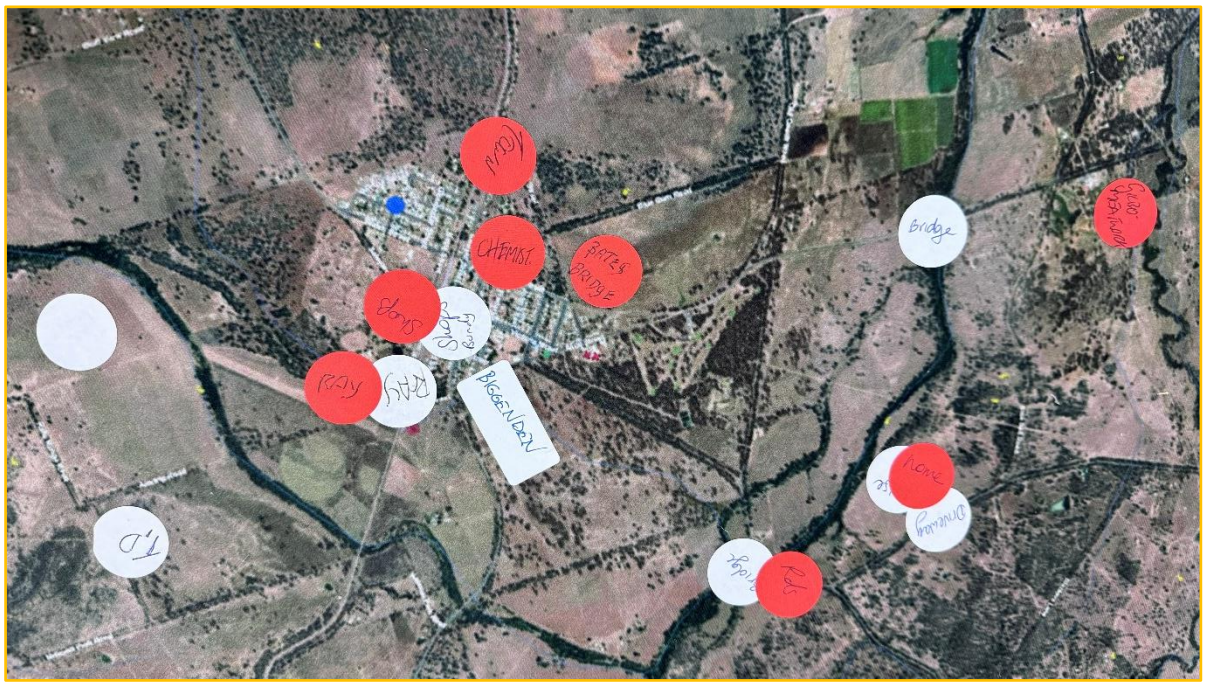
- **Emergency Evacuation Plans**: Households and businesses need to develop evacuation plans tailored to their specific circumstances. Trigger points, such as local weather alerts or official warnings, can activate these plans to ensure timely and orderly evacuations.

Analysis of Disaster Resilience in Monto

The Monto Big Map event highlights several critical themes in disaster preparedness and resilience:

- **Interconnectedness of Infrastructure**: The infrastructure identified as critical *before* a disaster is often foundational for recovery efforts *after* an event. For instance, maintaining the Monto Weir before a disaster ensures water supply continuity during recovery.
- **Community Knowledge and Preparedness**: Local knowledge of triggers, such as gauge station readings and spillway alerts, empowers communities to act decisively. Community engagement efforts should focus on disseminating this knowledge and ensuring preparedness actions are understood.
- **Infrastructure Vulnerabilities**: Monto's reliance on certain infrastructure, such as roads and bridges, underscores the need for targeted resilience-building measures. Addressing these vulnerabilities before disasters will minimise disruptions and expedite recovery efforts.
- **Communication Systems**: The reliance on power and telecommunications infrastructure emphasises the importance of redundancy. Backup systems, such as satellite phones and local radio networks, can ensure communication continuity during crises.
- **Localised Triggers for Action**: The community's familiarity with natural triggers, such as river height and creek levels, provides an opportunity to integrate traditional knowledge with modern warning systems. This dual approach strengthens overall preparedness.

Critical Infrastructure Analysis for Biggenden



Critical Infrastructure to Monitor Before (

Infrastructure in this category must be proactively managed to ensure operational readiness and community safety prior to a disaster. These assets are integral to maintaining normal functions and supporting emergency responses.

- **Hospital**: The hospital in Biggenden is essential for providing medical care during disasters. Maintaining a stable supply chain for medications, medical equipment, and functioning backup generators is critical. Regular emergency drills and disaster response training for staff also enhance preparedness.
- **School**: As key community hubs, schools require robust emergency plans. Their potential use as evacuation centres necessitates pre-emptive checks for structural stability, adequate emergency supplies, and clearly marked evacuation routes.
- **Pharmacy**: Pharmacies play a vital role in ensuring that residents have access to critical medications before and during emergencies. Pre-disaster efforts should focus on maintaining sufficient stock levels and strengthening the supply chain to prevent shortages.
- **Power Infrastructure**: Maintaining power lines and substations is crucial to minimising outages during disasters. Regular inspections and tree-clearing near power lines reduce the risk of disruptions caused by storms or floods.
- **Biggenden Water Supply**: The local water supply is a critical resource for households, businesses, and emergency services. Monitoring water levels and infrastructure integrity ensures that the community's needs can be met even during crises.

Critical Infrastructure Impacted After (Red Dots)

These are the infrastructure elements most likely to be damaged or disrupted during a disaster. Addressing their recovery is a high priority for minimising the disaster's impact on the community.

- **Power Outages**: Biggenden's power supply is vulnerable to outages caused by extreme weather events. Prolonged outages can disrupt communication, healthcare, and food storage, compounding the effects of the disaster.
- **Flooded Roads and Bridges**: Flooding often cuts off vital transportation routes in and around Biggenden, isolating communities and hampering emergency response efforts. These disruptions affect supply chains, evacuation plans, and access to medical care.
- **Damaged Telecommunications**: Phone and internet services are critical for coordinating disaster responses and keeping the community informed. Damage to telecommunications infrastructure impedes both emergency services and community communication.
- **Biggenden Showgrounds**: As a potential evacuation site, damage to the showgrounds limits its utility in disaster scenarios. Maintaining its readiness is essential for hosting displaced residents.
- **Flood-Prone Areas in Town**: Flooding in low-lying areas of Biggenden poses risks to residential properties, businesses, and local infrastructure. Mitigating flood risks in these areas is essential for reducing recovery time and economic losses.

Community Triggers to Prepare (Brown Dots)

Community-specific triggers signal the need for action in the lead-up to a disaster. Recognising these triggers enables the community to implement preparedness measures early, minimising impacts.

- **Gauge Stations**: Water level readings from gauge stations provide critical early warnings for flooding. Communities should be educated on interpreting these readings and how they correlate with evacuation thresholds.
- **Creek Levels**: Biggenden's creeks, particularly those prone to rapid rises during heavy rainfall, serve as natural indicators of impending floods. Regular monitoring of creek levels and historical data analysis help predict flood behaviour.
- **Dam Spill Alerts**: Alerts from nearby dams regarding spillway releases act as critical triggers for downstream communities. Biggenden residents must be aware of the potential for rapid water-level increases and plan accordingly.
- **Weather Warnings**: Severe weather alerts issued by authorities, such as forecasts of heavy rainfall or strong winds, should trigger community preparedness actions, including stockpiling essentials and securing properties.
- **Community Gathering Points**: Locations like the Biggenden Showgrounds and local town halls serve as rallying points during disasters. Communities need to know where to gather and how these points will be used during emergencies

Analysis of Disaster Resilience in Biggenden

The findings from the Biggenden Big Map event highlight key insights into the region's disaster preparedness and resilience:

- **Proactive Monitoring of Critical Infrastructure**: Regular assessments of hospitals, schools, power infrastructure, and water supplies are vital for ensuring community resilience. These assessments must focus on reducing vulnerabilities and ensuring operational continuity
- **Interdependence of Infrastructure**: Infrastructure damaged during disasters, such as roads, bridges, and telecommunications systems, significantly impacts recovery efforts. Addressing these vulnerabilities before disasters occur can reduce long-term disruptions.
- **Role of Community Knowledge**: The recognition of natural and infrastructure-based triggers, such as gauge station readings and dam spill alerts, underscores the importance of community awareness. Integrating local knowledge with formal early warning systems enhances preparedness.
- **Flood Mitigation and Recovery**: Biggenden’s susceptibility to flooding necessitates a dual approach: proactive mitigation measures, such as improving drainage systems, and efficient recovery processes for post-disaster scenarios.
- **Communication and Coordination**: The community’s ability to prepare and respond effectively hinges on robust communication systems. Maintaining redundant communication channels ensures that information flows seamlessly, even during disasters.
- **Localised Preparedness Triggers**: Biggenden’s residents have specific, actionable triggers, such as rising creek levels and weather warnings, which guide disaster readiness. Community engagement programs can further strengthen the population’s understanding of these triggers.

Critical Infrastructure Analysis for Murgon

Critical Infrastructure Before

Key white dots identified on the map for Murgon represent infrastructure essential to the community's functionality before a disaster event. These include:

- **Fuel Stations**: Vital for transportation and power generation during emergencies.
- **Ambulance Station**: Primary point of emergency medical services for Murgon and surrounding areas.
- **Police Station**: Crucial for maintaining law and order and coordinating emergency response efforts.
- **Schools**: Act as safe assembly points for the community, especially for children.
- **Water Treatment Plant**: Essential for potable water supply to the community.
- **ICA Store**: A central hub for grocery and supply chains in the region.
- **Community Hall**: Often used as an evacuation or information centre.

Critical Infrastructure Impacted **(After - Red Dots)**

Red dots indicate infrastructure that either became inoperative or required significant attention post-event. These include:

- **Bridge Access Points**: Several bridges marked as "flooded" or "cut off," disrupting transportation routes and access to services.
- **Hospital**: Critical post-event due to increased demand for medical care and potential accessibility challenges.
- **Evacuation Centre**: Identified as a primary location for displaced residents during floods.

- **Communication Tower**: Disrupted during the event, hampering emergency coordination public communication.

Community Triggers to Prepare (Brown Dots)

Brown dots signify potential triggers or preparation actions that the community must address to mitigate disaster impact. These include:

- **Vulnerable Homes Near Waterways**: Homes marked near flood-prone areas highlight the need for early warnings and relocation plans.
- **Road Cut-off Points**: Roads identified as "flooded" require alternative route planning and improved drainage systems.
- **Essential Supplies (Food/Fuel)**: Need for stockpiling essential supplies to avoid shortages during emergencies.
- **Satellite Dishes**: Indicated for improving communication in remote or isolated areas.
- **BP Dam Wall**: Highlighted as a critical point for monitoring during extreme rainfall events to prevent overflows.

Analysis of Disaster Resilience in Murgon

The findings from the Murgon Big Map event provide valuable insights into the region's disaster preparedness and resilience. These observations highlight areas of strength as well as critical vulnerabilities, providing a framework for future disaster management initiatives:

- **Proactive Monitoring of Critical Infrastructure:** Regular assessments of Murgon's key infrastructure, including hospitals, fuel stations, schools, and water treatment facilities, are essential to maintaining community resilience. Ensuring these assets remain functional and robust under extreme weather conditions is critical for disaster response and recovery.
- **Interdependence of Infrastructure:** Damage to interconnected infrastructure, such as roads, bridges, and telecommunications, was identified as a significant challenge. When one system fails, others often follow, exacerbating disruptions. Addressing these interdependencies through targeted upgrades can reduce cascading failures and enhance resilience.
- **Role of Community Knowledge:** Stakeholders emphasised the importance of local knowledge in recognising triggers such as rising river levels and weather changes. Combining this community-based understanding with formal early warning systems can strengthen preparedness and early action.
- **Flood Mitigation and Recovery:** As a flood-prone area, Murgon requires a dual strategy for managing risks. Investments in flood mitigation measures, such as enhancing drainage systems and constructing levees, paired with efficient recovery protocols, can minimise long-term impacts on the community.
- **Communication and Coordination:** Reliable communication systems are vital for effective disaster response. Disruptions to telecommunications infrastructure during floods or severe weather events create significant challenges. Establishing redundant communication systems ensures the timely flow of critical information between agencies and residents.
- **Localised Preparedness Triggers:** The residents of Murgon rely on specific, actionable triggers to guide their disaster readiness, including weather warnings, river gauge readings, and observable infrastructure vulnerabilities. Strengthening community engagement programs to reinforce awareness of these triggers can enhance preparedness at the household and community levels.

Critical Infrastructure Analysis for Mundubbera

Critical Infrastructure to Monitor Before (White

These are locations and infrastructure essential for ongoing maintenance and preparedness to ensure the community is resilient to disaster impacts.

- **Schools:** Safety plans for evacuation and emergency preparedness need to be up to date. Regular inspections of facilities and accessibility of evacuation routes are essential.
- **Bridges and Roads:** Key transport routes, such as Boyne River bridges, are critical for maintaining connectivity. Regular structural assessments are required to avoid disruptions.
- **Local Businesses:** IGA and other essential services must have stockpiling plans to ensure food and medical supplies during emergencies.
- **Community Halls and Evacuation Centres:** These are designated as safe spaces for community shelter during disasters. Facilities must be equipped with emergency kits, and structural integrity should be verified.
- **Dams and Weirs:** Monitoring water levels and structural safety of spillways is critical to prevent sudden flooding.
- **Hospital and Medical Facilities:** Emergency readiness, including backup power systems, adequate medical supplies, and communication capabilities, is vital.

Critical Infrastructure Impacted After (Red Dots)

These are areas and infrastructure likely to experience immediate issues after a disaster and require prioritisation for response and recovery efforts.

- **Power Outages:** Outages disrupt essential services, requiring robust restoration plans and backup systems.

- **Flooding in Low-Lying Areas:** The proximity of the Boyne River increases the risk of flooding, particularly for residential areas and businesses
- **Boundary Fences and Livestock Management:** Damaged fences result in livestock loss, impacting agricultural recovery efforts.
- **Road Blockages:** Debris and water inundation obstruct access, complicating relief and evacuation operations.
- **Communication Disruptions:** Loss of phone networks and internet connectivity hampers coordination and community updates.

Community Triggers to Prepare (Brown Dots)

Triggers for community-level action were identified to mitigate risk and enhance preparedness:

- **Gauge Monitoring:** The Boyne River and other gauge stations play a critical role in early flood warnings. Community education on interpreting gauge readings is vital.
- **Spillway Releases:** Early communication regarding spillway releases from local dams ensures downstream communities can evacuate or prepare.
- **Creek Monitoring:** Local creeks, such as Dunmill Creek, require regular monitoring during heavy rainfall events to predict overflow risks.
- **Evacuation Warnings:** Alerts through community systems must be clear and actionable, allowing for timely responses to rising river levels or other triggers.
- **Boundary Fence Conditions:** Awareness of vulnerable fencing areas can help farmers proactively manage livestock during flood risks.

Analysis of Disaster Resilience in Mundubbera

The findings from the Mundubbera Big Map event highlight several critical themes for improving disaster preparedness and resilience:

- **Interconnected Infrastructure:** Damage to key infrastructure such as bridges and power lines directly impacts emergency response and long-term recovery. Proactive measures to reinforce these assets can mitigate disruption.
- **Agricultural Vulnerability:** The reliance on livestock and farming makes boundary fencing a significant concern. Ensuring fence resilience
- **Community Knowledge and Triggers:** Local triggers such as gauge station data and creek levels provide valuable early warning systems. Integrating this knowledge with formal emergency management systems enhances preparedness.
- **Localised Flood Risks:** The Boyne River and surrounding creeks are significant sources of flooding. Improved drainage, levees, or early warning mechanisms could reduce flood impacts on homes and businesses.
- **Communication Redundancies:** The potential loss of phone networks emphasises the need for alternative communication methods, such as satellite phones or community radio stations.
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Kingaroy Event

The Kingaroy Big Map event was intended to gather insights into disaster resilience and preparedness from the local community, focusing on identifying critical infrastructure, preparedness triggers, and response priorities. However, the event experienced significantly lower attendance compared to other locations in the Burnett region, resulting in insufficient data to inform meaningful analysis or evaluation for the purposes of this report.

Several factors may have contributed to the lower turnout in Kingaroy. The timing of the event may not have aligned with community schedules, potentially conflicting with other commitments or activities. Additionally, the level of community awareness about the event and its objectives may have been lower than anticipated, possibly due to gaps in promotional efforts or competing priorities within the region. The size of Kingaroy, as one of the larger towns in the area, could have also diffused interest, with residents feeling less immediate personal connection to disaster resilience discussions compared to smaller, tightly knit communities.

While the Kingaroy event did not yield actionable data for this report, it highlights the importance of understanding local context when planning community engagement activities. Future efforts may benefit from tailored outreach strategies to address the unique dynamics of larger towns, ensuring greater participation and input into disaster resilience planning

Dululu

- **White Dots**: Key infrastructure includes a gauge station and a bridge crossing, both identified as critical for monitoring before disaster events, particularly flooding.

  Analysis:

  - Dululu's location near significant waterways makes the gauge station vital for early warning systems. The data from the gauge helps predict flooding and provides the community with crucial time to prepare and evacuate if necessary.
  - The bridge crossing is a critical connector for mobility and access, both for the local population and emergency services. Any damage to this infrastructure could isolate residents and impede relief efforts.
  - Maintaining these elements before disasters, such as regular inspections and strengthening of the bridge, will be essential for disaster preparedness and community resilience.

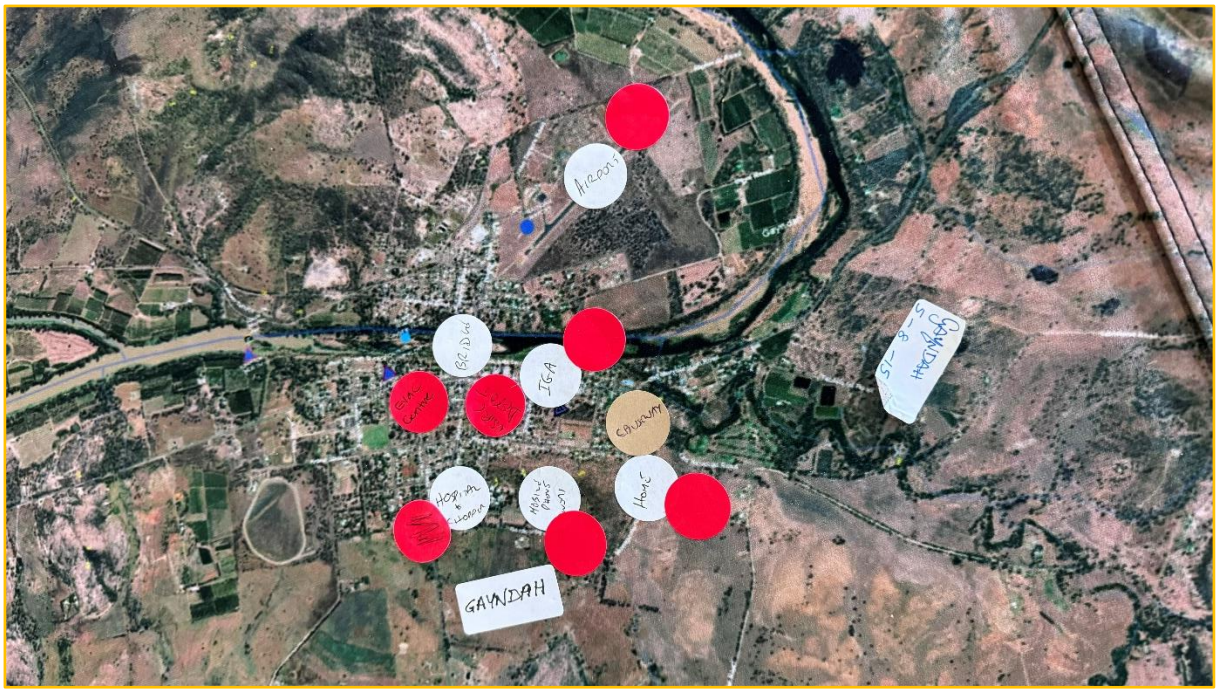
Boondooma

White Dots: Infrastructure includes the Boondooma Dam, which plays a significant role in water management and flood mitigation.
Analysis:

- The dam serves as a critical upstream flood control mechanism. Regular monitoring of water levels and spillway operations is essential to prevent uncontrolled flooding downstream.
- Boondooma Dam also ensures water supply continuity for agricultural and community needs. This is particularly important in the event of prolonged droughts or disruptions caused by extreme weather events.

- Early-warning systems and spillway management protocols should be integrated with community disaster plans to address potential risks effectively.

Gayndah



- **Red Dots**:
  - Bridges and roadways critical for transportation and connectivity.
  - Residential homes located in flood-prone areas.
  - Emergency evacuation centres highlighted as essential for post-disaster relief.
- **Analysis**:
  - Gayndah's infrastructure vulnerability is tied closely to its proximity to the Burnett River. Flood events could isolate large parts of the community if bridges and key roads become impassable.
  - Residential areas near waterways require effective floodplain management to minimise impacts on homes and livelihoods.
  - Emergency evacuation centres must remain accessible and operational post-disaster, underscoring the need for robust communication networks and pre-positioned supplies.
  - Addressing vulnerabilities to transportation networks, particularly bridges, will be vital for both emergency response and long-term recovery.

Eidsvold

- **White Dots**: Infrastructure includes significant road crossings and localised assets that support mobility and access.

- **Red Dots**: Vulnerabilities include flood-prone transportation routes and areas susceptible to water inundation.

- **Analysis**:

    - Eidsvold's infrastructure challenges primarily involve maintaining road access during and after disaster events. Flooding and debris can disrupt transportation, isolating the community and delaying emergency response.
    - Regular maintenance of road crossings and investment in resilient designs for culverts and drainage systems will mitigate the impacts of flooding.
    - Localised triggers, such as rising creek levels, should be closely monitored to provide timely evacuation alerts.

General Observations Across Towns

Waterway Proximity and Flood Risks

Many of the towns analysed, including Dululu, Boondooma, Gayndah, and Eidsvold, are situated near rivers, creeks, or dams. This geographic characteristic makes them susceptible to flooding during heavy rainfall or dam spill events.

Infrastructure such as gauge stations, spillways, and drainage systems must be maintained and monitored to provide early warnings and reduce the impact of floods.

Transportation Infrastructure

Bridges and roads are consistently identified as critical infrastructure, both pre- and post-disaster. Their role in connecting communities and enabling emergency response underscores the need for investments in resilient designs and rapid repair capabilities.

Towns like Gayndah and Eidsvold rely heavily on a small number of key access points, making these assets particularly vital to disaster preparedness plans.

Community Awareness and Preparedness

Many of the identified vulnerabilities can be mitigated through improved community awareness and preparedness. For example:

- Understanding gauge readings and their implications can help communities take pre-emptive actions.
- Engagement programs to educate residents about evacuation plans, flood risks, and triggers can significantly enhance resilience.

Local knowledge, combined with technology and formal disaster management protocols, can empower communities to respond effectively.

Infrastructure Interdependence

towns analysed demonstrate a strong interdependence of infrastructure. For instance:

- Functional bridges ensure access to evacuation centres and relief supplies.
- Stable water management systems, such as Boondooma Dam, support not only flood mitigation but also water supply for agriculture and households.
- Communication infrastructure remains essential for coordinating emergency responses, particularly in isolated rural areas.

Disaster Recovery Challenges:

Recovery efforts in these towns often hinge on the availability and functionality of key infrastructure. Post-disaster road clearance, power restoration, and the reopening of critical facilities like evacuation centres are essential for supporting affected communities.

Comparison and Analysis of Stakeholders and Communities Across Australian Towns

The study of stakeholders and communities across the towns of Monto, Biggenden, Murgon, Mundubbera, Dululu, Boondooma, Gayndah, and Eidsvold reveals notable patterns in disaster preparedness and resilience efforts. While their roles and priorities differ, both groups share common goals and face overlapping challenges. This comparative analysis underscores the interplay between systemic strategies and grassroots approaches, highlighting areas for synergy and improvement.

Similarities Between Stakeholders and Communities

Commitment to Critical Infrastructure

In every town, the significance of critical infrastructure, such as bridges, roads, evacuation centres, hospitals, and gauge stations, is universally recognised.

Stakeholders focus on the maintenance and upgrades of these facilities, ensuring operational continuity during and after disasters. For instance, councils in flood-prone regions like Gayndah prioritise the structural safety of bridges spanning the Burnett River.

Communities similarly emphasise the importance of infrastructure but from an immediate, practical perspective. For example, local residents often identify roads and bridges as essential for evacuations, livestock movement, and the transport of supplies post-disaster.

Flood Risk Awareness

those in Monto and Eidsvold, places a significant emphasis on managing flood risks.

- Stakeholders invest in technologies like gauge stations, spillways, and early warning systems to provide timely alerts.

- Communities depend on these tools while also integrating traditional knowledge, such as observing local creek behaviour during heavy rains. This alignment is particularly evident in towns like Mundubbera, where both groups actively monitor the Boyne River's flood levels.

Triggers for Community Action

preparedness.

- Stakeholders develop frameworks to disseminate warnings, such as the Bureau of Meteorology's flood alerts.
- Communities rely on both formal channels and informal networks, such as neighbourhood groups, to ensure rapid response. This dual system fosters an interconnected approach to disaster readiness.

Collaborative Engagement

Across towns, collaboration emerges as a shared value.

- Stakeholders, including councils, emergency services, and non-government organisations, engage communities through education campaigns like Queensland's Get Ready program.
- Communities actively participate, hosting preparedness events, creating sandbag stations, or attending fire safety workshops led by the CFA in Victoria.

Differences Between Stakeholders and Communities

Scope of Priorities

- Stakeholders take a macro view, addressing systemic issues that transcend individual towns. This includes securing funding for infrastructure upgrades, implementing regional floodplain management policies, and integrating technologies like flood modelling.
- Communities focus on localised, immediate needs. In Biggenden, for example, residents prioritise protecting livestock and crops, while in Eidsvold, emphasis is placed on ensuring access to evacuation centres during floods.

Capacity for Preparedness and Response

- Stakeholders possess substantial resources and expertise. Government agencies like the Queensland Reconstruction Authority manage large-scale recovery programs, while organisations like the State Emergency Service (SES) mobilise trained personnel for response efforts.
- Communities rely heavily on local volunteers, fundraising, and resourcefulness. For example, during the 2022 floods, informal community groups in Gayndah provided food and shelter before formal assistance arrived.

Decision-Making Processes

- Stakeholders often work within structured frameworks, guided by policies and data-driven decisions. This can delay immediate action but ensures consistency in long-term planning.
- Communities make decisions based on immediate needs and local knowledge. This enables rapid responses but can lack alignment with broader disaster strategies.

Flood Management in Gayndah and Monto

- In Gayndah, the Burnett River's flood potential makes bridge safety a shared concern. Stakeholders focus on structural upgrades, while residents prioritise ensuring alternative routes are available when bridges are inaccessible.
- In Monto, gauge stations and spillway alerts are critical. Stakeholders emphasise maintaining these systems, while communities focus on educating residents about interpreting alerts and responding effectively.

Infrastructure in Mundubbera and Biggenden

- In Mundubbera, discussions centre on the maintenance of roads and bridges, with stakeholders focusing on securing funding for long-term repairs and residents advocating for short-term solutions like clearing debris.
- In Biggenden, the operational readiness of schools and hospitals during disasters is critical. Stakeholders ensure power backup and supplies, while communities prioritise accessibility and transportation to these facilities.

Communication Challenges in Dululu and Eidsvold

- In Dululu, communication breakdowns during disasters highlight the reliance on formal systems like satellite phones. Communities bridge gaps with informal networks and local radio.
- Eidsvold showcases the integration of stakeholder-led early-warning systems with community-based word-of-mouth dissemination.

Shared Challenges and Opportunities

Bridging Communication Gaps

Both groups face challenges in ensuring reliable communication during disasters. In areas like Murgon and Mundubbera, improving redundant systems, such as community radios or satellite phones, presents a shared opportunity.

Resource Allocation Constraints

Budget limitations affect both stakeholders and communities. For instance, while stakeholders may delay large-scale projects like bridge replacements due to funding cycles, communities often struggle to access grants for smaller-scale initiatives, such as reinforcing flood barriers.

Integrating Knowledge Systems

There is a need to bridge the gap between stakeholder expertise and community knowledge. While stakeholders rely on hydrological data and risk assessments, communities contribute local insights, such as historical flood patterns. Collaborative education and engagement initiatives can align these knowledge systems.

Building Resilience Together

Shared goals, such as protecting lives and property, offer opportunities for joint initiatives. Co-designed projects, where communities provide input into stakeholder-led efforts, can enhance disaster preparedness. For instance, combining stakeholder funding with community Labor for levee construction has proven effective in towns like Lismore

Conclusion

The analysis of stakeholders and communities across these Australian towns reveals a complex interplay of shared goals, differing priorities, and complementary capacities. Stakeholders excel in long-term, systemic approaches, while communities bring localised, adaptive strategies to the forefront. By fostering collaboration, leveraging shared insights, and addressing resource gaps, stakeholders and communities can strengthen disaster resilience and create a unified approach to managing future challenges.

In nature's wrath, we find our strength anew, through storms and fires, our spirits must endure.

With knowledge gained, our fears we can subdue, Preparedness is the key to stay secure.

When rivers rise and flood the lands we tread, or fires rage and skies are filled with ash,

Resilience guides us through the paths we dread, and helps us rebuild swiftly from the crash.

Awareness grows as we unite and learn, Communities stand strong, hand in hand.

In every challenge, there's a chance to turn, to safeguard lives and heal our precious land.

For in the face of nature's fierce display, Resilience lights the path, shows us the way.

RED EARTH Community Foundation

Disaster Relief Australia

MINDEROO FOUNDATION

FRRR Foundation for Rural Regional Renewal