



SOCIAL AND ECONOMIC IMPACTS

GISERA | Gas Industry Social and Environmental Research Alliance

Trends in community wellbeing in Queensland 2014–24

CSIRO scientists have completed a longitudinal study that explores trends in community wellbeing and adapting to change in Queensland's Western Downs and eastern Maranoa regions.

Key points

- Since the 2010s, there has been significant activity from coal seam gas (CSG) development in the Western Downs and Maranoa regions of southern Queensland.
- CSIRO first surveyed community wellbeing in the Western Downs in 2014, with three further surveys conducted through to 2024. Eastern Maranoa was added in 2016.
- Data collected over a decade, across four different phases of CSG activity, reveals that overall community wellbeing has remained robust.
- By 2024, most participants felt their region was either coping well with CSG development or had changed in positive ways.
- The findings offer useful guidance for governments, industries, and communities planning and responding to large-scale infrastructure development.

This project, conducted through CSIRO's Gas Industry Social and Environmental Research Alliance (GISERA), explores community wellbeing in the Western Downs and eastern Maranoa regions of Queensland – both areas that have experienced significant CSG development activity.

Four community surveys were conducted between 2014 and 2024. Each of these corresponded with a different industry phase and a different level of well activity.

The recently published 2024 report conveys the findings of the fourth survey, and also reports on changes that have taken place over the decade 2014–24.

A key finding is that overall community wellbeing remained robust over all four phases of the industry cycle.



Dimensions of community wellbeing grouped into six domains.



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The Western Downs and Maranoa regions

The Western Downs region, spanning nearly 40,000 km², is situated in southern Queensland, about 300 km west of Brisbane. It includes four main town centres: Dalby is the largest, followed by Chinchilla, Miles and Tara.

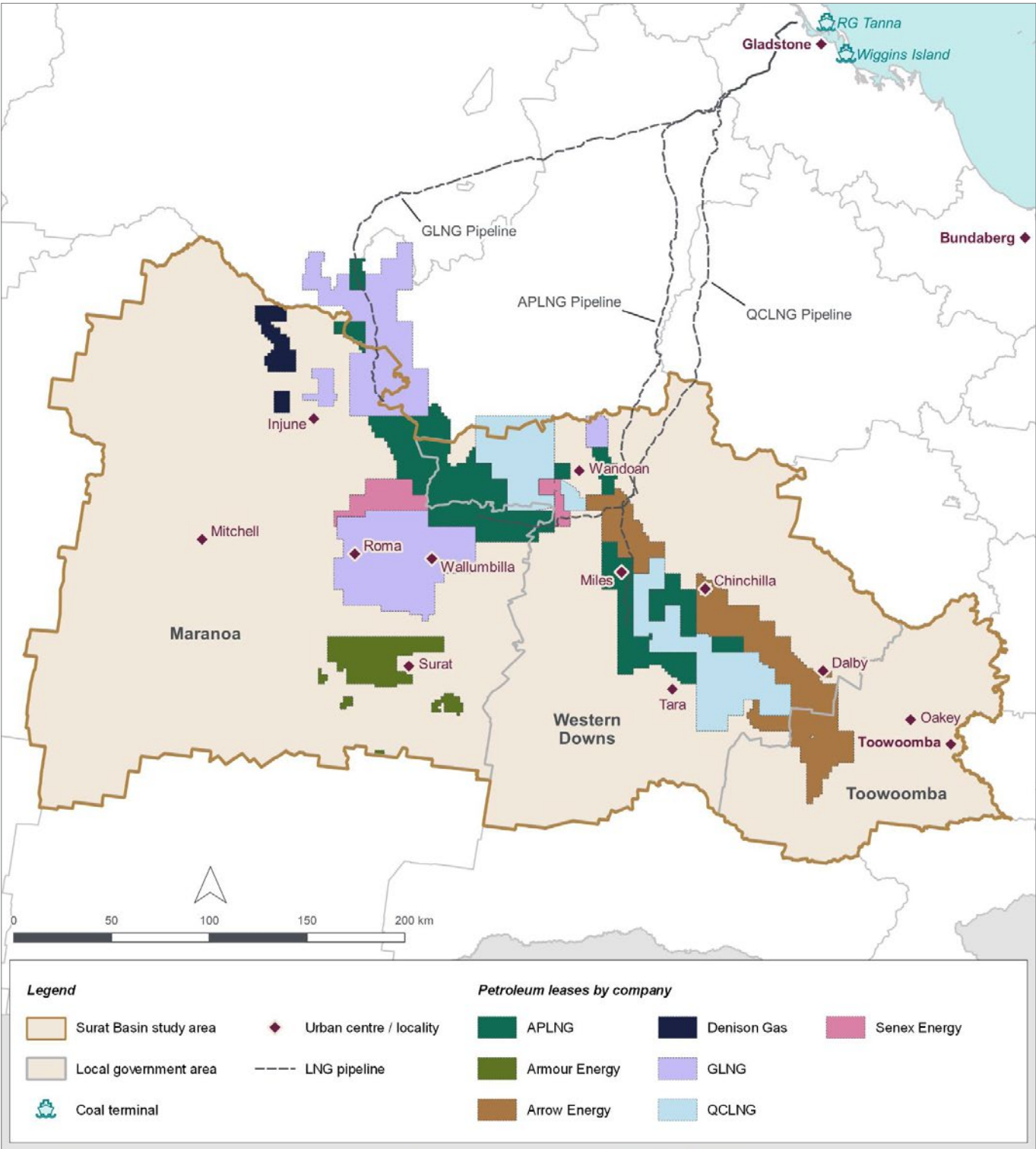
In 2023, the estimated resident population was almost 35,000. The population has been growing since the 1990s and is expected to continue this trend.

The region’s economy is primarily driven by agriculture, forestry, and mining. The mining sector features gas exploration and production, coal mines, and power stations, notably the Kogan Creek mine and power station, which opened in 2006.

The power station is located adjacent to the new Kogan Clean Energy Hub.

The Maranoa region, located west of and adjacent to the Western Downs region, is approximately 480 km west of Brisbane. This local government area spans nearly 60,000 km², and the primary land use is agricultural, with some timber production, and now gas exploration and production’. The estimated resident population of the Maranoa region was approximately 13,250 in 2023.

Coal seam gas (CSG) activity has been present in the eastern half of the Maranoa region, since the mid 1990s. Since 2016, the region has served as a comparison area for the Western Downs in this research.



Map of the Surat Basin, local government areas and petroleum leases. Source: Queensland Government Statistician’s Office (2024) Surat Basin population report, 2023.

Project approach and methodology

In 2014, CSIRO conducted a baseline survey of community wellbeing and perceptions of coal seam gas development in the Western Downs. Researchers have continued monitoring local concerns and perceptions through subsequent surveys, and in 2016 the eastern half of the Maranoa region was added to the Western Downs sample and reported as a separate region.

The four sets of data collected between 2014 and 2024 correspond with different industry phases and changes in CSG well activity:

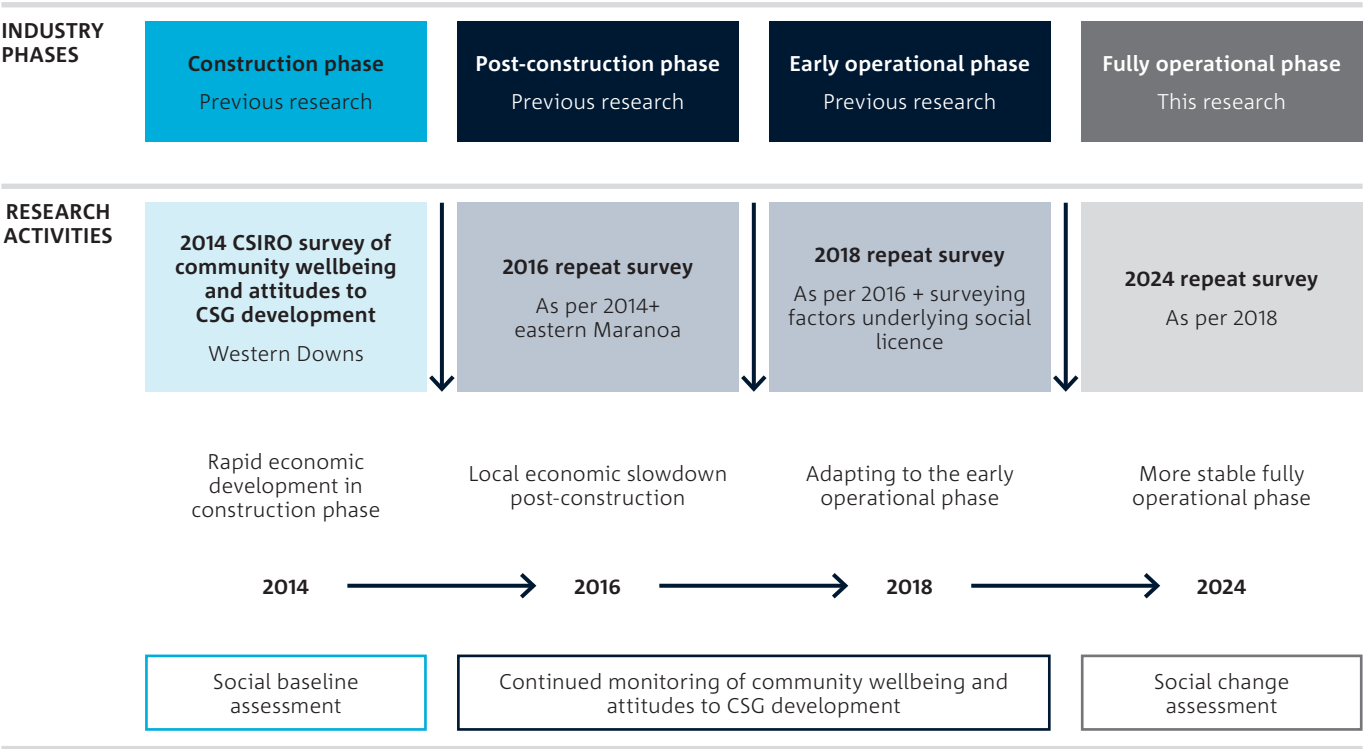
- 2014: Construction phase of the industry
Total wells (new and existing) – 5,618
- 2016: Post-construction phase
Total wells (new and existing) – 6,933
- 2018: Early operational phase
Total wells (new and existing) – 8,055
- 2024: Fully operational phase
Total wells (new and existing) – 11,323

For the 2024 survey, which took place from late-May to mid-July, a telephone survey was conducted with 601 residents from the Western Downs region and the eastern half of the Maranoa region (401 and 200 residents respectively). On average, the surveys took 30 minutes to complete.

A third-party research company administered the survey using a database of landline and mobile telephone numbers to randomly select residents based on pre-determined selection criteria and demographic quotas. The quotas were used to ensure a sufficient sample in each subregion, inclusion of those living in and out-of-town, and reasonable representativeness in gender and age.

The survey investigated seven main topics:

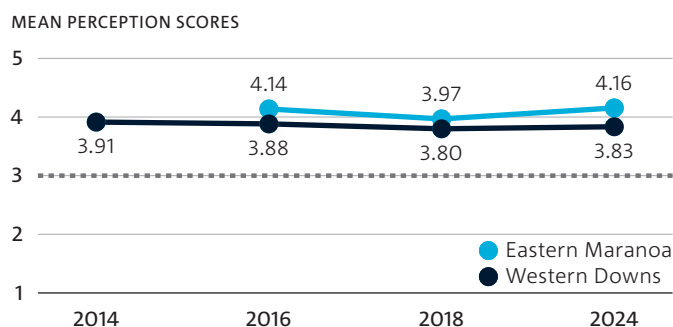
1. perceptions of community wellbeing and 15 different dimensions underpinning community wellbeing
2. expected future community wellbeing
3. perceptions of community adapting to CSG development
4. attitudes and perceptions of CSG and the sector, including concerns, benefits, risks, trust, fairness and governance related to CSG activity
5. knowledge, interest, and information sources about CSG development
6. demographic questions
7. attitudes towards renewable energy infrastructure, and relevant learnings from CSG that could be applied to renewable energy development in the region



Four surveys conducted over the last decade.

Key findings

Over the ten-year study, community wellbeing across the Western Downs and eastern Maranoa regions remained robust, even as the community experienced four distinct phases of the CSG industry cycle.



Overall community wellbeing: Western Downs and eastern Maranoa.

Note: 1 = lowest and 5 = highest perception; scores <3 indicate unfavourable perceptions, scores >3 indicate favourable perceptions.

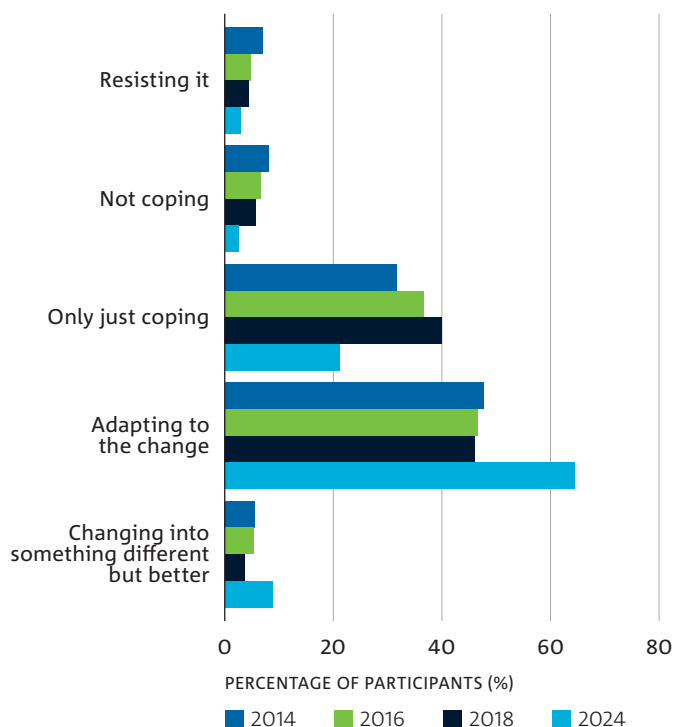
Core social dimensions, including community spirit, cohesion, trust, and access to local services and facilities, consistently emerged as the most important contributors to a sense of wellbeing. High levels of place attachment were maintained throughout the decade, reflecting an enduring sense of pride and belonging in local towns and landscapes.

While overall wellbeing was stable, the community's views on economic opportunities and environmental management shifted noticeably over time. Satisfaction with local economic opportunities dropped in 2016, during the post-construction phase, when many small businesses experienced downturns. However, by 2024, confidence had rebounded, and perceptions were more positive than in 2014.

Views on environmental management, particularly around groundwater, nature reserves, and agricultural sustainability, showed steady improvement over the decade, although concerns remain about risks to underground water from CSG activity.

Economic opportunity featured only once as a key driver of community wellbeing—when at its lowest point in 2016. By contrast, social factors remained central throughout all survey years.

Importantly, expectations for future community wellbeing have improved significantly. In 2024, the majority of people in both regions (81% in Western Downs and 89% in eastern Maranoa) felt their wellbeing would either remain stable or improve—an encouraging shift from less optimistic views recorded in 2016. These positive outlooks are now shaped primarily by current wellbeing and place attachment, rather than concerns about how communities are adapting to changes with CSG development.



Perceptions of community adapting to CSG development: Western Downs, 2014–24.

Community confidence in local adaptability has strengthened notably. By 2024, most participants (73.3% in Western Downs and 84.1% in eastern Maranoa) felt their region was either coping well with CSG development or had changed in positive ways. This contrasts sharply with earlier years, when many felt their communities were resisting or struggling with change.

The research findings, which are explored in further detail in the project report, provide valuable information to support government and industry planning, and to inform adaptive governance and decision-making for large-scale infrastructure development.

In addition to the report, the project team has developed a publicly-available [online tool](#) that allows users to interact with the research—comparing data from different survey years, regions, and demographics.

More information

[Read more about this project](#)

[Dive deeper into survey results with the interactive online data tool](#)

[Learn about other GISERA research in Queensland](#)

[Find out about other GISERA social and economic impact research](#)

Further information | 1300 363 400 | gisera@csiro.au | gisera.csiro.au

GISERA is a collaboration between CSIRO, Commonwealth and state governments and industry established to undertake publicly-reported independent research. The purpose of GISERA is to provide quality assured scientific research and information to communities living in gas development regions focusing on social and environmental topics including: groundwater and surface water, greenhouse gas emissions, biodiversity, land management, the marine environment, and socio-economic impacts. The governance structure for GISERA is designed to provide for and protect research independence and transparency of research.