



SOCIAL AND ECONOMIC IMPACTS

GISERA | Gas Industry Social and Environmental Research Alliance

Perceptions of coal seam gas in Queensland 2014–24

CSIRO scientists have completed a longitudinal study that explores trends in local attitudes to coal seam gas development in Queensland's Western Downs and eastern Maranoa regions.

Key points

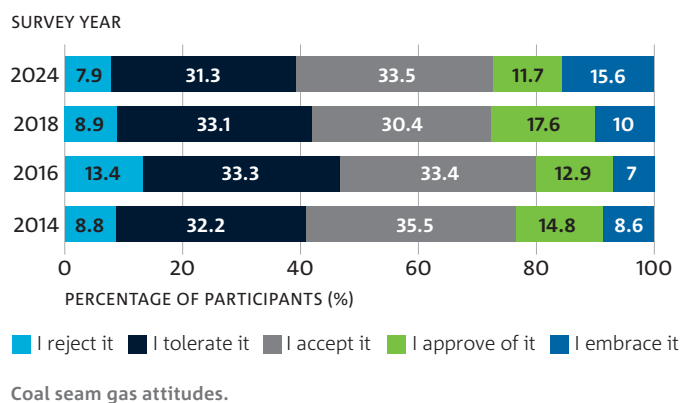
- Since the 2010s, there has been significant activity from coal seam gas (CSG) development in the Western Downs and Maranoa regions of southern Queensland.
- In 2014, CSIRO conducted a baseline survey of perceptions of CSG development in the Western Downs.
- Since then, a further three surveys have been conducted to monitor any changes to local concerns or perceptions. Eastern Maranoa was added to the survey in 2016.
- Data collected over a decade, across four different phases of CSG activity, reveals that attitudes and perceptions towards CSG have become more positive over time.
- The results offer important insights for communities, industries and governments, and can inform adaptive governance and decision-making in the face of large-scale infrastructure development.

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

CSIRO conducted four community surveys between 2014 and 2024. Each of these surveys 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 CSG attitudes and perceptions have become more positive over time, with an increase in the percentage of people who 'approve' and 'embrace' CSG developments, and a decrease in the percentage who 'reject' or simply 'tolerate' it since 2016.



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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.

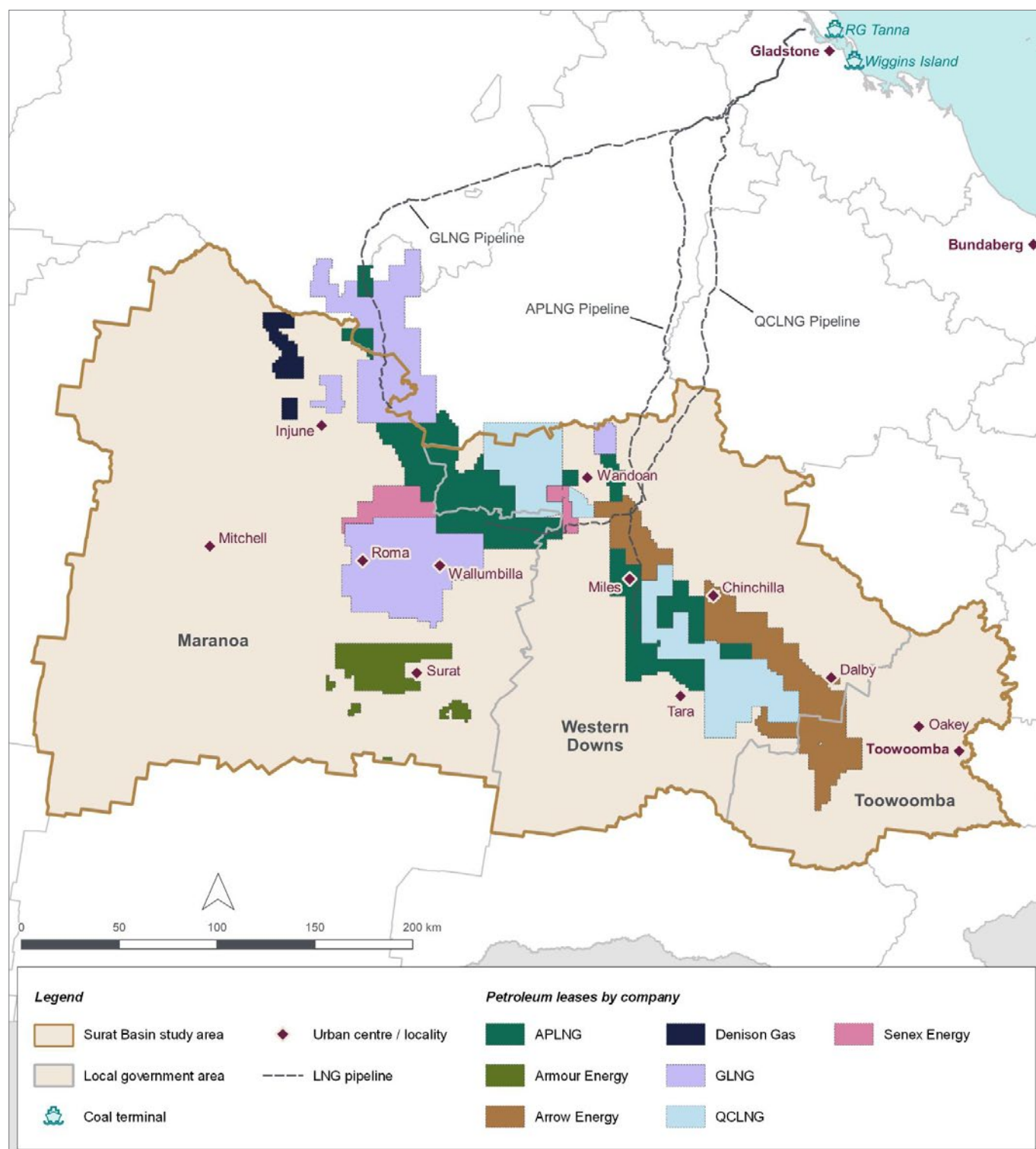
In 2023, the estimated resident population was almost 35,000. The population has been growing since the 1990s and is expected to continue this trend.

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, as well as 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:

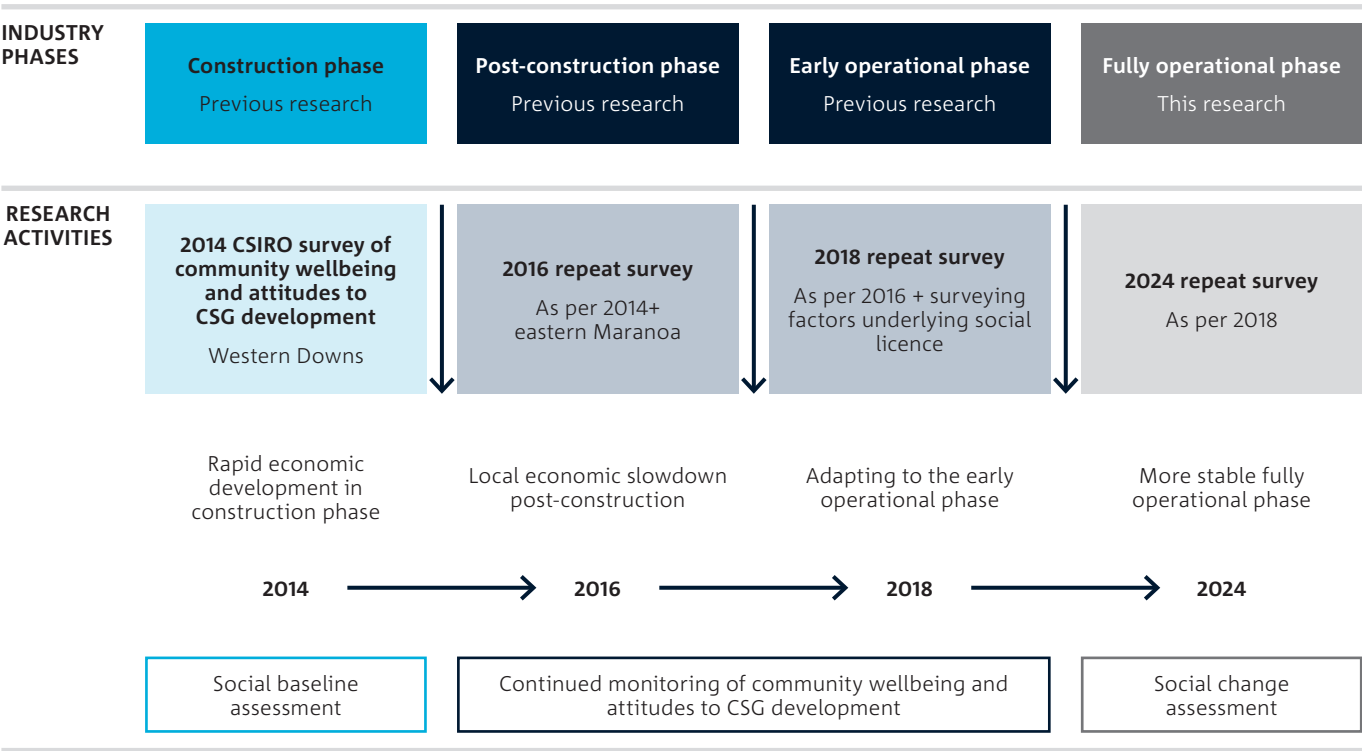
- 2014: Construction phase of the industry
Total wells (new and existing) – 5,618
- 2016: Post-construction phase
Total wells (new and existing) – 6,933
- 2018: Early operational phase
Total wells (new and existing) – 8,055
- 2024: Fully operational phase
Total wells (new and existing) – 11,323

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

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 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:

- perceptions of community wellbeing and 15 different dimensions underpinning community wellbeing
- expected future community wellbeing
- perceptions of community adapting to CSG development
- attitudes and perceptions of CSG and the sector, including concerns, benefits, risks, trust, fairness and governance related to CSG activity
- knowledge, interest, and information sources about CSG development
- demographic questions
- 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.

Underlying drivers of social acceptance

- **Perceived impacts:** concerns about immediate issues, possible future issues, risk manageability, risk severity.
- **Perceived benefits:** local benefits, regional and societal benefits.
- **Distributional fairness:** perceptions of how fairly impacts and benefits are shared.
- **Trust in the onshore gas industry:** Trust and confidence in industry competence, and doing the right thing by communities.
- **Relationship quality:** perceptions of the quality of the relationship between industry and community.
- **Procedural fairness:** perceptions of how fairly the industry will treat the community.
- **Governance:** perceptions of formal governance (regulations and compliance), government engaging with communities, working collaboratively with communities, trust in state departments.
- **Energy transition narrative:** the role of gas in reducing carbon emissions and transitioning to renewable energies.
- **Knowledge:** awareness and understanding of the onshore conventional gas industry.

Key findings

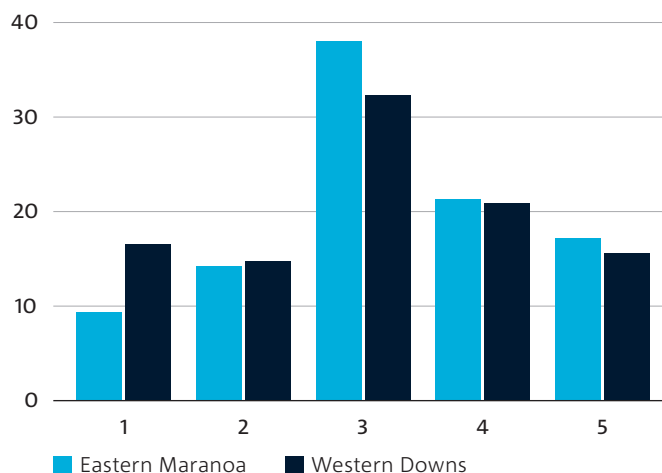
Community attitudes towards coal seam gas (CSG) development in the Western Downs and eastern Maranoa regions have become significantly more positive over the past decade.

In 2024, acceptance of CSG reached its highest levels since surveys began. In the Western Downs, just 8% of residents said they rejected CSG (down from 13.4% in 2016), while 31% tolerated it, 33% accepted it, 12% approved of it, and 16% embraced it. The eastern Maranoa region showed a similar pattern, with 5% rejecting it, 26% tolerating, 33% accepting, 23% approving, and 12% embracing CSG.

This positive shift is linked to decreasing perceptions of negative impacts, increasing perceptions of benefits, and more favourable views on trust, governance, and fairness in industry-community relations.

Farmers involved in CSG also reported improved satisfaction with company dealings, although some concerns remain about relationship quality, trust, and procedural fairness, more so among those not directly involved in CSG activities.

PERCENTAGE OF PARTICIPANTS (%)



Interest in the local CSG industry: Western Downs and eastern Maranoa, 2024.

Note: 1 = not at all interested; 5 = very interested.

Interest in CSG has waned as the industry has become part of everyday life. Desire for information about CSG decreased from 2018 onwards, and in 2024, only 16.5% of Western Downs residents reported being 'very interested' in CSG, with over 40% of people in both regions stating that they 'never' or 'seldom' think or talk about it.

Despite the generally positive trend for CSG, attitudes toward renewable energy, infrastructure such as wind and solar farms were more polarised, with rejection rates in 2024 exceeding any recorded for CSG over the past 10 years.

Participants identified two key lessons from CSG relevant to the renewable energy sector: the need for honest, respectful communication, and the importance of minimising impacts while delivering tangible local benefits.

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](#)

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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.